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LATE AUTUMN IN THE SIERRAS

BY GRANT H. SMITH



THE days are golden; the rain-washed air is clear and sparkling; the warm rays of the south-sloping sun fall like a benediction. Not a leaf stirring save those that drift down from the whitening branches.

No sound of insect or of bird except the occasional harsh note of the jay.

The opening lines of a famous sonnet come to mind:

"That time of year thou mayst in me behold,
When yellow leaves, or none, or few, do hang
Upon those boughs which shake against the cold;
Bare ruin'd choirs, where late the sweet birds sang."

The only music is the unceasing murmur of the streams.

The short days pass all too soon, with reading, dreaming, and untiring contemplation of Nature's majestic handiwork.

Often a ride up the steep trails, with their infinite variety; along flashing streams and deep gorges, through primeval forests, up to the high ridges, commanding wide views of dark cañons and range on range of forested mountains.

At the close of day, a stroll along the brook fringed with poplars, where yellow leaves lie deep, rustling underfoot and giving forth a fragrant, pungent odor; returning through the tree-encircled meadow, to enjoy again the play of light and shadow on the ragged peaks

of the great mountain that seems to block the wide cañon opening to the west.

Long, solitary, restful evenings in the cabin, with pipe and book, where a glowing fire warms like the presence of a cherished friend.

Before bed, a walk in the starlit night, to marvel afresh at the wonders of the heavens, whose shining lights hang so low that vision seems to penetrate far beyond.

Late rising in the frosty mornings, a wash in the ice-cold waters of the brook, and then to breakfast with appetite that makes simple fare a feast.

* * *

All nature is preparing for the snows and the long winter sleep.

The birds have all flown southward except those undaunted by harsh weather. The grouse have taken to the high ridges.

Tree-squirrels and chipmunks noisily gather their winter stores; severing pine-cones with their sharp teeth, which fall with resounding crash in the silent woods.

The ground-squirrels are already half-dormant in their warm, dry nests.

Everywhere the fresh-turned earth tells of the industry of the gophers, gathering grass and roots for storage in deep cellars.

Scarcely an insect passes through the air save a few belated butterflies, unmindful of their early demise.

Such of the grasshoppers as have postponed death crawl slowly in the sunshine.

The ants and wasps and bees have ceased their labors.

The trout, no longer sprightly, lie in the deep pools, scarcely feeding.

Dark and cold run the swift streams which in summer seemed so gladsome. Now they are brightened only by the yellow leaves that come floating along, resting lightly on the water.

On the mountains above the bears are making ready for their long sleep, while the deer await the first fall of snow before departing for the foot-hills, whence the quail have already gone.

The few mountain-lions that remain all winter are having their last fill of venison until the return of the deer in the spring; meantime they will grow thin and hungry on a slight fare of snow-shoe rabbits, porcupines, and other small animals.

With the first heavy snow, the fat, stupid, shambling porcupines

will betake themselves to the tops of tall pines and firs, there to cling through the blasts of winter, barely subsisting on the tender bark, whose removal kills the tree-tops.

Only the eagles, hawks, grouse, woodpeckers, kingfishers, water-ouzzels, jays, owls, chickadees and snowbirds, and the lions, bob-cats, coyotes, martins, mink, porcupines, foxes, rabbits, flying squirrels and tree-squirrels will brave the winter weather for a precarious living.

* * *

On the earth brownness everywhere; the flowers and grasses have long since died; the tender plants and shrubs, blasted by frost, hang in tatters.

Nature—ever seeking to make amends—for lack of beauty elsewhere has glorified the landscape with the flaming banners of autumn.

Along the streams the maples, cottonwoods, and willows are all green and gold, intensified by an occasional crimson splash of dogwood.

The mountains, towering on every hand, adorned with stately pines and firs and cedars, interspersed with aspens, oaks, maples, and dogwood, present a gorgeous spectacle of intermingled and contrasting colors.

A great peace hangs over earth and sky, inviting and satisfying the soul.

FIRST ASCENT OF MOUNT WILBUR

BY NORMAN CLYDE



TOWARD the end of last August the writer came trudging leisurely down the trail from Swiftcurrent Pass, in the heart of Glacier Park, toward Lake McDermott. He had expected to reach that point several weeks earlier, but carried away by sheer joy in scaling the mountains which rise so thickly in the limited area of the park and in viewing its superb, ever-varying scenery, he had come very slowly up the range from Glacier Park Hotel, which he had left some five weeks before, and which, as the crow flies, was still only about fifty miles away. Although the rugged region to the north lured him onward, he felt that he must quickly bid farewell to the mountains which had been the occasion of so much delight to him. Not far to the left towered the dark massive form of Mount Wilbur, partially obscured by clouds, the remnant of a storm which had swept across the mountains for several days. Various stories were current in regard to the mountain, and it was commonly believed to be unscalable. The writer had carefully scanned its southern face with a small telescope, but everywhere sheer cliffs seemed to cut off any approach to the summit. He had surveyed the northern face from a peak across Iceberg Lake almost as high as Mount Wilbur itself, but the numerous almost vertical chimneys, or, rather, chutes, offered little encouragement to any attempt to climb it from that direction. Although the western end of the main ridge could be ascended from the rear, it was apparently separated from the highest point by impassable gashes. If the peak was to be climbed at all, it appeared from casual observation that it must be accomplished on the eastern face.

While seeking information at Many Glacier Hotel the writer met Mr. Elrod, of the University of Montana, who suggested that if another attempt were made he would be pleased to scale the mountain. Together they carefully examined its eastern façade from the hotel veranda. It seemed comparatively easy to get within a thousand feet of the summit, but there difficulties would begin. A broad band of diorite appeared to be possible of ascent at one point only,



MOUNT WILBUR FROM THE SUMMIT OF GRINNELL MOUNTAIN
Photograph by Norman Clyde



MOUNT WILBUR FROM THE NORTH
Photograph by Norman Clyde





LOOKING NORTH FROM MOUNT WILBUR, MOUNT MERRITT IN CENTER
Photograph by Norman Clyde

about midway across the mountain. The writer called attention to two small chimneys leading toward the summit from this break in the diorite, but after examining them for some time through his field-glasses Mr. Elrod declared them to be impossible to scale. The writer, however, made the following observations: that the chimneys were not so precipitous as they appeared to be; that, judging from the character of the rock of which they were composed, there would be an abundance of holds; that the cliffs just below the summit, beneath which the chimneys seemed to terminate, might be feasible; that, if they should not be, a way to the right might be discovered which would lead to the crest of the ridge just below the summit and above the last impassable notch.

On the following morning clouds hung heavily down over the upper half of the mountain. They might, however, break away later in the day. At any rate, the writer could not wait. He therefore took the trail toward Mount Wilbur, but carelessly turned to the right, following the one which led to Iceberg Lake. Although soon aware of the mistake, he decided to continue on to the lake, induced to do so partly by the hope that there might possibly be a climbable chimney above it extending upward to the summit. The fog still enveloped the peak when he arrived there, but he resolved to scale the walls which rise above the lake, expecting that it might clear away. Without difficulty he reached an elevation perhaps two thousand feet above it. There almost sheer strata of limestone and argillite and the belt of diorite seemed to bar farther advance. After some unsatisfactory exploring, the clouds began to lift from the mountain. It was about the middle of the afternoon, but still there might be time for a dash toward the summit. The writer dropped rapidly down the side of the mountain until he encountered a broad limestone shelf, which he followed around to its eastern face, a short distance below the horizontal band of diorite, which proved to be absolutely sheer until the point above described was reached. There it was sufficiently broken to be scalable, and above it rose the two chimneys to an elevation at no great distance below the summit. As there was no time to lose, the writer scrambled over the tough diorite by clinging to protruding points and worked steadily and cautiously upward in the chimneys and along the ridge between them. The character of the rock necessitated care and steadiness. Some difficult places were encountered, but they were either surmounted or circum-

vented. The chimneys came to an end some distance below the peak, and the writer pursued a diagonal course across the shelves that lined the face of the cliff, which here receded at an appreciable angle. In a short time the crest of the ridge was reached, above the last great notch, and, turning to the left, a rapid walk of a few moments brought the writer to the summit. It consists of red argillite, and is possibly a hundred yards in diameter. The view along the crest of the range in either direction is superb, but does not surpass that obtainable from other near-by and more easily scaled mountains. A long line of rugged peaks, too numerous to mention, stretched southward, displaying sheer precipices, great cirques, and beautiful glaciers, with lovely lakes nestling below them. Northward were still higher mountains, still greater cirques, and the profound valleys of the region of the Belly River. Three thousand feet directly below, covering the floor of a tremendous cirque, was Iceberg Lake, a wonderful turquoise blue, flecked with white sheets of snow-covered ice.

After hastily surveying this sublime panorama, the writer began to construct a monument from the rock-slabs which lay strewn about upon the summit. It then occurred to him that it would be fitting to erect a substantial one as a tribute to the memory of Dr. Wynn, of Indianapolis, who had been ardently devoted to the mountains of Glacier Park, who had ascended many of them, and finally lost his life on Mount Siyeh, a few miles distant from Mount Wilbur. He had attempted to climb the latter peak, but had been turned back by the sheer walls that he had everywhere encountered. The writer therefore worked lustily, but the sun was now low in the west, and if darkness should overtake him he would be unable to make the descent. Having erected a cairn some seven feet in height, he cautiously descended as the shadows of evening crept gradually over the mountain.

On the following morning the monument could be seen with the naked eye from the veranda of Many Glacier Hotel, and the precipitous form of Mount Wilbur did not seem to tower so defiantly across the lucid waters of the lovely Lake McDermott.

GODDARD AND DISAPPEARING CREEKS

THE ENCHANTED GORGE

BY J. S. HUTCHINSON

BETWEEN Mount Goddard and Simpson Meadow on the Middle Fork of the Kings lies a rugged bit of unexplored country which, until Theodore S. Solomons and E. C. Bonner passed through a portion of it in 1895, was practically unknown land, except to some sheepmen and a few prospectors. It is bounded on the north by the Goddard Divide, on the east and south by the Middle Fork, and on the west by the North Fork.

There are trails all around this region, but none into it. To the north is the trail up Evolution Creek, to the east the John Muir Trail down the Middle Fork, to the south the Tunemah Trail, and to the west the trails about the headwaters of the North Fork.

In 1904 I looked down into this region from Mount Goddard. Five years later I viewed it from the northern slopes of Woodworth Mountain, and again from near Tunemah Pass.

This region is hemmed in on the west by the White Divide, on the east by the Black Divide; in between these is the Ragged Spur. These ridges are all well named. It is drained by Goddard and Disappearing creeks. No one, so far as we know, has published anything about it except Mr. Solomons, who described his trip down Disappearing Creek.*

The ruggedness and isolation of this region, the names of its highest peaks, Scylla and Charybdis, the mystery of the name "Disappearing Creek"—all appeal to one.

On July 22, 1923, J. K. Moffitt, F. C. Torrey, Colonel W. H. Williams, and I reached Simpson Meadow by way of Mineral King, Kern Cañon, Junction Pass, Rae Lake, Pinchot Pass, and Cartridge Creek, and established a camp in that wonderful grove of yellow pines near the river. We had traveled rather steadily and decided to lay over for a few days. This was the chance I had sought for many years—a chance to explore this rugged and little-known

* See "Mt. Goddard and Its Vicinity—in the High Sierra of California," by Theodore S. Solomons, in *Appalachia*, vol. viii, p. 41. Also, see Solomons' Map, in *SIERRA CLUB BULLETIN*, vol. xi, No. 4, opposite p. 387.

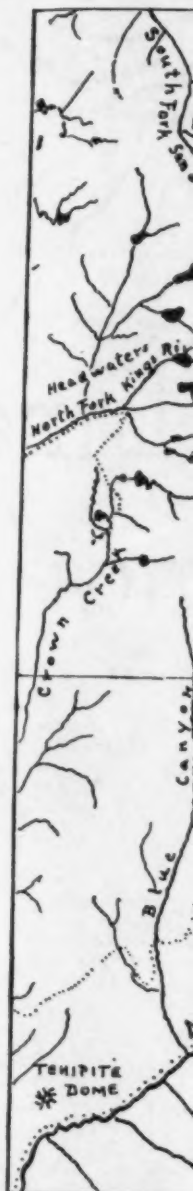
region, to get a close-up view of Mount Goddard from the south, and to follow Goddard and Disappearing creeks from start to finish. Moffitt and Torrey had plenty of attractions near camp and preferred to remain at "home." Colonel Williams volunteered to go with me. He had never been on a Sierran knapsack trip, wanted to be initiated, and the idea appealed to him.

Two days later the Colonel and I started at 10 A.M., with knapsacks, provisions for two days, one army blanket, a light sleeping-bag, camera, and field-glasses. We forded the river near camp and soon were on the sandy sagebrush flat on the north side. Just before reaching Goddard Creek on this sandy flat we killed our first rattlesnake. This recalled to me an experience of years before. In 1909 we had forded the main river when the water was extremely high. A pack-animal was swept down-stream and was only saved from drowning by being washed onto a sand-bar far below. What was left of his pack we dried in the hot sun on this sandy flat, and while there, for a couple of hours, killed five rattlers.

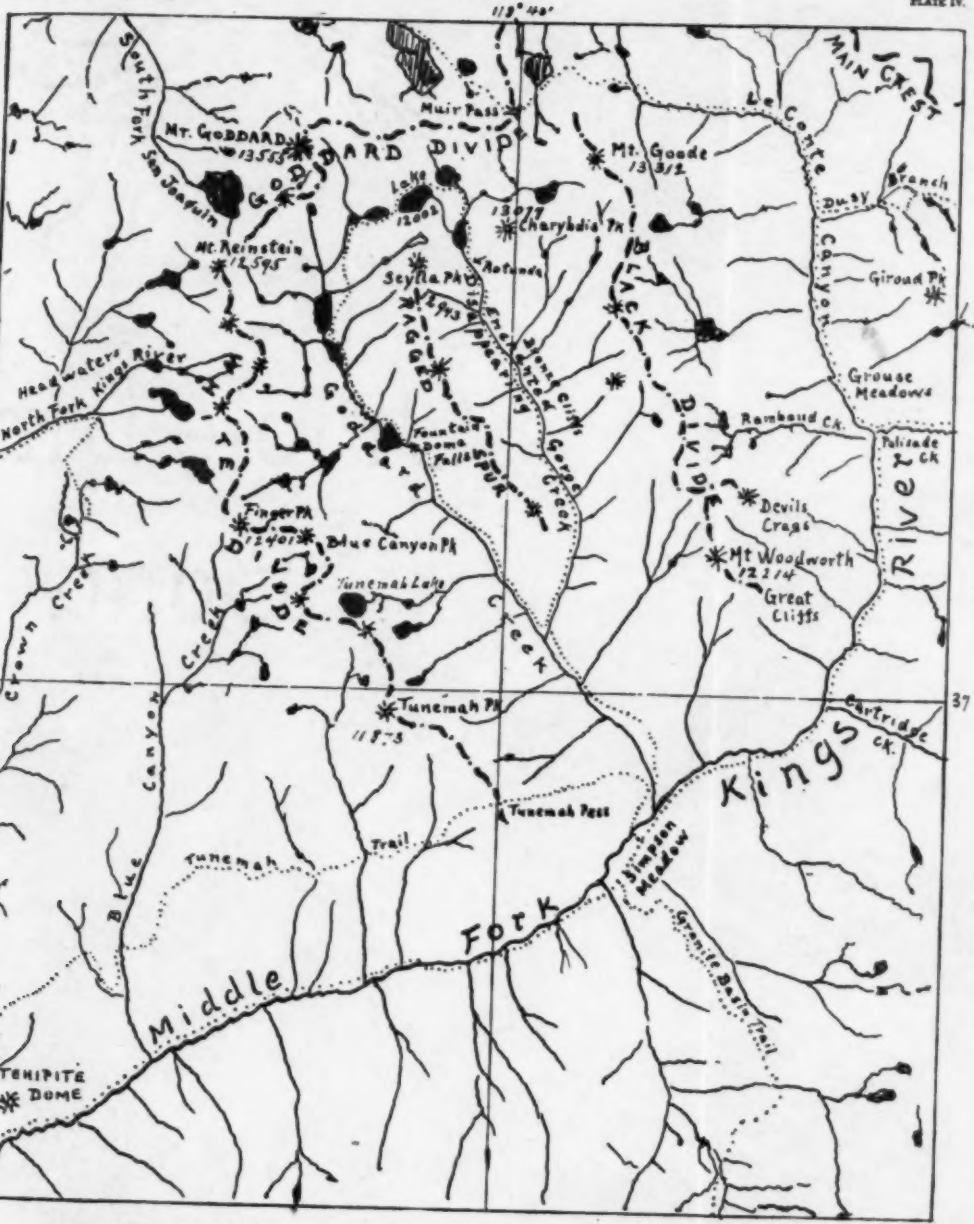
Goddard Creek is a very swift stream, and it required some care in crossing. Once on the eastern side, we started up the steep, sparsely forested slopes. A mile up the cañon the stream drops from a narrow gorge by a high and beautiful fall into a deep box cañon, with moss and ferns growing on the reddish-brown side-walls. This fall itself would be considered a wonder were it not surrounded by such marvelous scenery.

After the first stiff pull up to the top of these falls the bed of the cañon is less steep. The traveling, however, much of the way is through thick brush and scrubby oaks. Cloud-bursts on Woodworth Mountain had cut several deep V-shaped gorges at right angles to our course. Occasionally we found signs of very old sheep-runs and here and there a "duck." At a point where the first stream comes down from Woodworth Mountain there is an almost impenetrable thicket, through which we fought our way. Here, in the midst of this thick jungle, we found a very old indistinct sheepman's blaze on a cottonwood.

Once past this stream, the cañon broadened slightly, and there were small patches of meadowland near the main stream. Midway between this first stream and where Disappearing Creek comes bursting out of its narrow gorge we found a little gem of a valley—a beautiful mountain park—not very wide, but plentifully filled



BETWEEN
and S



BETWEEN MT. GODDARD and SIMPSON MEADOW Scale 0 1 2 3 4 5 Miles
J.S. Hutchinson. March 1924.



Between Mt. Goodard and Simpson Meadows

with splendid pines and lush grasses, growing shoulder deep, with wild flowers in the greatest profusion. This park is entirely surrounded by high, rugged Yosemite-like cliffs, and all about, from the Middle Fork to this point and far beyond, the walls are startlingly rugged and wild. This is a wonderful park, undisturbed for several decades. Here we found a number of large bear-tracks and at the upper end of the park we aroused a young fawn. It looked at us inquiringly and then leisurely bounded away.

This park extends up to where Disappearing Creek bursts out of its narrow cañon at the lower end of the Enchanted Gorge, a wild, seething, white-water stream. Fortunately, a fallen pine aided us in crossing. A little distance above, the closing walls of the cañon again come together and the stream at the bottom for several miles is confined in a deep box cañon carved out of the slate formations. Half a mile above Disappearing Creek we found the last signs of human occupation in the lower Goddard Creek country—a few “ducks” set up on boulders and entirely overgrown with brush.

The whole country for miles is of slatelike formation, reddish and brown in appearance, with vertical cleavage. The river is confined almost continuously within the vertical walls of this box cañon. Occasionally it plunges down in picturesque falls. Now and then side streams from the west come sliding down the cañon walls and drop into the box cañon in lacelike drapery, festoons, and rockets.

At a little sandy flat near the stream we suddenly came upon a huge rattler coiled in the hot sun. He was entirely unconcerned as we watched him. He had never seen a human being before and paid little attention to us. Presently he began to move slowly off. With a forked stick we pinioned his head and with a knife severed the neck. Picking up the body we cut off the rattles and threw the wriggling trunk down into the sand near the severed head. The headless body in squirming around touched the neck; the head instantly darted around and imbedded its fangs into the body and there remained.

Climbing over the slate is very tiresome. The side-walls were extremely steep, and it required great care to prevent slipping and being precipitated into the box cañon. We stopped frequently to rest. The sun had long since set behind the high western walls of the deep cañon, and we began to think of a camping-place. The scraggly junipers had disappeared. None could be seen, except far behind

us, and we would not retrace our steps. Far up the gorge, beyond a high fall in the main stream, we could see where the cañon bent to the west, and, judging from the slant of the shadows on the eastern walls and from our contour map, we felt that we would be in a more open and hospitable country and pressed on as fast as possible, but it was slow and laborious work. We were both quite weary. The Colonel said to me, jokingly, "Jim, I shouldn't have come on this trip." I admitted that it was pretty tough work, but replied, "We'll both feel better about it in a couple of weeks."

The moon had risen and shed a brilliant light. At 8:30 o'clock, we came to a bend in the cañon; the country opened into a broad valley, and we saw a welcome grove of trees. Through the trees, in the distance, the bright moonlight brought out what appeared to be a huge sheet of snow—a strange, unexpected sight, for we had passed no snow whatsoever on our trip. On nearer approach it proved to be a wonderful waterfall and cascade—most beautiful in the moonlight. Our elevation now was about 9800 feet.

We threw down our bundles near the stream, on the mossy banks covered with bryanthus and cassiope, built a huge camp-fire, and immediately set about preparing dinner.

Much refreshed by our repast, we began to examine our surroundings. The falls above us were of most unusual form and appearance. From our position below the waters appeared to burst up like a great broad, full-flowing fountain which spread out a seething, boiling, turbulent mass of white foam and silvery spray and flowed down as over the surface of a huge dome, forming numerous rivulets. We called this Fountain-Dome Falls. The rivulets finally gathered themselves together into a stream which, in well-defined mossy banks, after flowing a hundred yards, plunged over the cliffs in another fall into a box cañon far below.

It was getting late, and we soon began to search for a place to sleep. There was no place to lie down, except on the granite slabs or in a large area just below the falls, entirely overgrown with bushes of Labrador tea two feet in height, growing in great profusion. Dead tamarack logs all about gave us ample fuel, and in the midst of this tea-garden we built a huge fire. We needed this, for there was a chill breeze blowing down the cañon. The Colonel wrapped his thin blanket about him; I crawled into my light bag. We drew as near to the fire as we dared and lay down on the tea-

bushes. Any kind of tea at night will make one wakeful, but this cold Labrador tea was the worst. Our mattress had altogether too much wood in it—the fire too little. We slept but little. Many times during the night we were up to renew the dying fire and warm our chilled bodies and were glad when dawn came.

By daylight we could see that the stream had fallen considerably during the night, owing to the freezing in its alpine sources, but the falls still retained their fountain- and dome-like appearance. The whole character of the country had changed. The day before we traveled in a very narrow cañon, composed almost entirely of slate. We had now reached a very open glacial lake basin, composed of granite and comparatively level.

After taking a number of photographs, we started up the stream and soon reached and skirted a good-sized lake, and then entered quite a little high alpine forest. Here we found the last traces of man's previous presence. At the northern end of this lake someone a generation before had felled a dozen tamaracks, all now greatly decayed. How these axmen had reached this stream we could not tell. Probably over the White Divide and down through an open cañon which here comes in from the west, but from our point of view the Divide looked quite impassable.

We followed up our open glaciated valley, crossing and recrossing many times the little streams into which the main stream had divided, and soon had passed the last trees, except here and there a skeleton-like albicaulis. A mile more of travel over glacial troughs, interspersed here and there with small patches of grassy meadowland, brought us to the last large lake in the upper end of the basin. This lake was completely bounded on the east by a large rocky talus-pile and at the farther end by high vertical cliffs, down which the small stream heading at the southern base of Mount Goddard tumbled in white foam. We deliberated as to whether we should skirt around the shore of the lake or immediately start our ascent diagonally to the point where we wished to cross the Ragged Spur. We chose the latter course and headed for a number of tiny white ribbon-like streams which coursed down from the heights to the right. The next hour was most wearisome. The rocks lay at a very steep angle, and were small and insecure. With each step forward one slipped down several inches and constantly lost one's balance, but by noon we had crossed this wearisome slope and had reached a shelf beside the rib-

bon-like streams, high up above the lakes which we had passed an hour before. Here in this beautiful spot, looking down on the lakes and across to the snowy, rugged peaks of the White Divide, we had our noonday repast of hardtack, prunes, and nuts.

The ascent from our luncheon-place to the divide was not nearly so severe as we had been through. It was something of a steady climb—in one place, up through a chimney—but it was in the solid rock and the footing was good. The Colonel was leading, and had gone some distance ahead. A sudden drowsiness seized me; I sat down to rest and in a few minutes was sound asleep. How long I slept I do not know, but when I awakened and had climbed a few hundred feet farther I found the Colonel returning, quite concerned because of my long absence. He said he was afraid I had fallen and been hurt. I told him that I had fallen asleep, but it didn't hurt.

The divide was now much flattened. We had reached a high altitude—perhaps 11,800 feet—passed a number of small lakes and crossed many large snow-fields. One lake, before we reached the summit, caused us considerable anxiety and trouble. The snow-fields sloped steeply into the lake and the margin was frozen. We tried to go high up across the snow-fields, but they were too slippery. Finally we found the ice on the lake margin to be firm, and so made good time. From this point we could look directly back and see the sharp summit of Mount Reinstein, and directly to the northwest of us, a mile away, rose the black wall of Mount Goddard, the summit 1700 feet above us.

Repeatedly during the day the Colonel had said to me: "Let's not travel so late tonight. Let's make camp early." I acceded to this most readily, and said: "We'll camp at the first timber on the other side. As soon as we cross the divide, it will all be down-grade; we'll make good time, and soon be in the timber and have firewood."

It was just 5 o'clock when we finally reached the divide and found the water running eastward. The Colonel was ahead, where he could look over. He was not pleased. As I came up, he said, "What do you think of this?" I said, "I don't think much of it; it doesn't look good to me." It was the wildest and most forbidding of scenes. Just below us, in a sort of bowl, was Lake 12002—the headwaters of Disappearing Creek—probably the highest lake in California off of the Main Crest. In the center the waters were of the deepest indigo blue, and near the shore-line a light emerald. On the southern

Charybdis

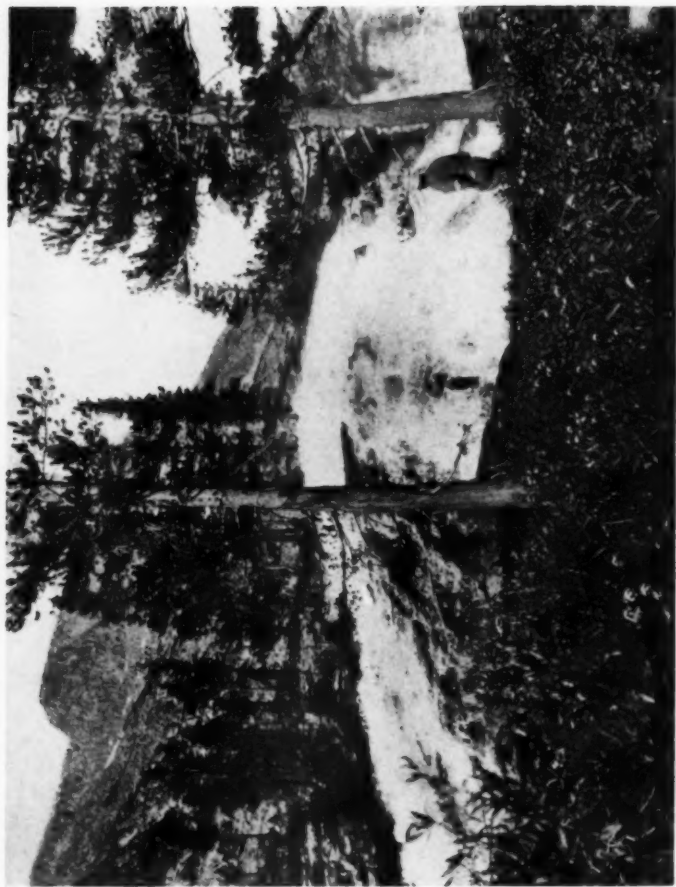


Scylla

PLATE V.

THE ENTRANCE TO THE ENCHANTED GORGE
Photograph by Theodore S. Solomons, 1895





FOUNTAIN-DOME FALLS, UPPER GODDARD CREEK BASIN
Photograph by J. S. Hutchinson

side of this lake steep frozen snow-banks ran directly down to the water's edge. The northern shore was bounded by huge ragged boulders. To the northeast we looked along the black slopes of the Goddard Divide, and to the east toward the Black Divide—all greenish-black in color. Great patches of snow lay everywhere. There was not a sign of a tree or grass or any living thing. The cañon was filled with long black shadows and the wind had sprung up.

In spite of this forbidding scene, I again said to the Colonel that we were now on the downward grade. It certainly would be easier than climbing with our heavy packs, and suggested again that we would soon reach timber. We would have preferred to take the southern shore of Lake 12002, it being much more nearly in our desired direction, but the snow and ice were too dangerous for safe traveling. We were forced along the northern edge of the lake. It took much time and care to get down a hundred or more feet to its shores, and then there was a long tedious pull over the boulders to its eastern end. This lake at high-water has two outlets. Only one is shown on the map—the one draining into Disappearing Creek. But when the lake is high there is a second outlet, which drains into another good-sized lake below to the northeast. This outlet had just dried up a few days before.

Our course took us down to this second lake, the outlet stream from which ran southerly for half a mile under a long smooth, narrow snow-tongue at the bottom of a gorge. From this point we could look through the gateway of the Enchanted Gorge between Scylla and Charybdis—Scylla to the west, Charybdis to the east, both frowning down on us, jet black, except where spotted by great weirdly-shaped fields and grotesque tongues of snow—the gaunt black ribs giving these peaks a savage, hungry look. Travel on the snow was rapid and a great relief and we had visions of rapid transit far down the cañon. This snow-tongue soon brought us to a lake not shown on the map—a lake which completely fills the cañon from wall to wall, lying midway between Scylla and Charybdis. This lake is at the extreme head of what Mr. Solomons called the "Enchanted Gorge."

The eastern shore of this lake was one huge talus-pile of enormous ragged boulders; the western shore was vertical cliffs. To skirt the western shore would have required a high climb back of the cliffs. The talus-slope was forbidding, but it was the lesser of two evils.

To reach this talus we had to go either over or around a rock buttress a hundred feet or more in height, which projected out into the lake, into water waist deep. Weary with climbing and already wet from the snows, a little water more or less would not bother us. Rather than climb over the bluff, we chose the water route. The distance was only thirty feet, but one can get well soaked in that distance, even though transit be rapid. We were soaked through and through, and our bootlegs, as we tramped on, sounded like suction-pumps. We had better luck than Odysseus of the "Classic Myths," and got around the lake past Scylla and Charybdis without losing a soul.

Beyond the southern end of the lake the cañon drops off suddenly. We hoped for a cheerful view and a camping-place, but disappointment met us. We looked down into what Solomons called "The Rotunda," a great amphitheater of rocks, rocks, rocks, all surrounded by almost vertical cliffs rising several thousand feet above, of a greenish-black hue; in fact, the whole formation everywhere was somber greenish-black. There was not a sign of vegetation anywhere, and beyond "The Rotunda" the black cañon walls closed to a narrow gorge. Huge black, perfectly symmetrical, fanlike talus-slopes lay all about at the base of the cliffs.

The setting sun tipped the high points of the Black Divide. Aside from these, the only bright spot was the radiant sunlight on the snowy peaks of Granite Basin, twenty miles away, framed in by the narrow black walls of the cañon.

At the southern end of the lake a stream, full-grown, disappears under a very long narrow, smooth snow-bank. The traveling here was fine, greatly to be preferred to any rocks. We followed it to the end. Beyond the snow-bank the stream was gone, lost entirely for miles under the great mass of boulders. It had died without a murmur and not a sound of it was heard.

Then began real and serious rock work. The bottom of the amphitheater was filled with huge boulders of all sizes, some as large as houses, all thrown together in most diabolical confusion. Every rock which had ever been dislodged from the cliffs above in the last million years had landed directly in the bottom of the cañon. In several places rock avalanches had come down and laid themselves clear across the cañon—in many instances resembling huge terminal moraines. It was most desperate work getting in, through, around, and among them.

At the lower end of "The Rotunda" a stream, large and full-flowing, suddenly bursts out from the boulder mass and for a hundred yards spreads out like a long narrow lake—the whole volume, however, moving smoothly, swiftly, like a broad deep stream. Again it disappears under the huge boulder mass. This is repeated several times.

Beyond "The Rotunda" the real cañon begins, and here we came to long, long stretches of snow, brought down in avalanches, which completely filled the narrow cañon from wall to wall. The stream disappeared entirely in long snow tunnels and under snow bridges. The bottom of these deep north-and-south gorges gets but little sun and the snow lingers long into the summer. Occasionally the top of the snow tunnels had broken through, showing the snow thirty feet in thickness. We could look down through these great fantastic snow-holes, festooned with icicles, into the seething, raging white torrent. It was a mystery where all the water came from, for we were still at a very high altitude.

The snow furnished wonderful traveling, except where it lay at a steep angle and was frozen. We could not avoid it if we would. There was no way but down the bottom of the cañon. These snow patches required the greatest possible caution. In many places a slip above one of these snow-holes would have carried one into the raging torrent to be swept into a snow tunnel. Several times the stream plunged down in falls which must be descended.

The sun had long since set. The walls of the cañon were of the blackest hue. It had become very dark, but the full moon began to shed a grateful light, making a weird and awesome scene. To add to the excitement and interest, we did not know at what moment we might come to some impossible place and be compelled to go back or to climb over the Black Divide to the Muir Trail.

Mile after mile we went over rocks, over snow and ice, at each little bend expecting to see some welcome trees for a fire. Presently, on the opposite side of the cañon, we saw in the distance what appeared to be some junipers hanging to the cliffs and had visions of firewood. Closer approach proved them to be nothing but weird, grotesque rocks. Frequently we looked up at the cliffs towering several thousand feet above us, hoping for signs of trees which might have shed some limbs into the cañon, but there were none. The Colonel called it a fire-proof cañon.

A mile farther down we found the first signs of wood—a very large stump lying prostrate near the stream. We thought some of stopping here. We whittled off some chips and started a little fire on the log. We possibly could get enough fire for cooking, but could not make a camp-fire of a single log. Finding this log encouraged us that others might have fallen into the talus-slopes above. In the moonlight I thought I saw some logs high up above us and climbed up the talus a hundred feet or more, but all the prospective logs were nothing but black boulders. Besides the lack of wood, there was no place to lie down, except upon the sharp rocks. We left the little fire burning on our log and continued on down the cañon. A few hundred yards down, we looked back and saw our little fire, like a weird lantern, burning in the blackness of the gorge.

Presently the cañon narrowed even more, and a slick rocky promontory projected out on our side of the stream. The stream was too swift and treacherous to think of crossing, and we must either go over or below this buttress. The lower side was in deep shadows, the shadows running down into the stream. We tried above, but the steep rock was slippery, being covered with damp moss. We tried to cross this on hands and knees, but the moss peeled off with us. It was absolutely impossible. We must go below the buttress and through the dense shadows. Here were growing some tall slender willow bushes, the first vegetation we had seen since entering Disappearing Creek. We started into the dense darkness, feeling our way over and around the boulders, hearing all the while the roaring of the stream right below us. It was necessary that we drop down to a little lower level. I grasped a large boulder with both arms and proceeded to lower myself as far as possible, trying to reach the bottom. I could find no footing. The Colonel was right beside me, so I told him to grasp my right wrist and lower me so that I could reach a little farther—I still holding on to the boulder with the other hand. This allowed me to reach down a couple of feet farther into the darkness and I found a solid footing and edged along for a distance. The Colonel followed. We were now in a tangle of small willows, with the stream apparently right beside us. By feeling our way and by lighting matches we finally got through the darkness into the moonlight and out where the cañon opened quite a little—comparatively. Beyond we began to see signs of more vegetation ahead—some junipers silhouetted against the moonlight. In fifteen minutes we were



SNOW TUNNEL, NEAR THE HEAD OF THE ENCHANTED GORGE
Photograph by Theodore S. Solomon, 1895



Slopes of
Charybdis

Scylla



THE ROTUNDA AT THE HEAD OF THE ENCHANTED GORGE
Photograph by Theodore S. Solomons, 1895

in more open country, surrounded by a number of old dead trees brought down by a snow avalanche, and we actually had our feet on sand, the first we had seen since noon, and it was now 9:30 P.M.

Wet, cold, tired, hungry, footsore, we threw down our bundles. It was a great moment! The stream was madly rushing by, about fifty yards from our "camp," but between us and it was a thicket of willows full of dense shadows, and in the shadows was a terrible mess of nettles. Feeling one's way to water under these conditions was truly a Satanic job, but we must have water, so we got it.

Soup and coffee cooked in the same kettle, but not at the same time, bacon fried in our little tin pie-plate, some dried prunes, hard-tack, and chocolate completed our dinner, and at 11 P.M. we sat before our huge log fire and smoked in peace. I told the Colonel that in six months (I had increased the time from two weeks) he would look back on this night with unalloyed pleasure. He said he was going to write a story, "Bootlegging it down the Enchanted Gorge by Moonshine."

At midnight, we crawled into our beds, reclined against the granite blocks, and tried to sleep till dawn. By daylight we could see that we were quite near where the cañon bends toward the west. The country was much more open. Our breakfast of coffee, bacon, and dried prunes was soon finished. The Colonel looked at his map and said: "Two miles to Goddard Creek. We'll be there in an hour." I said: "Not if we have any rock work like that we have been through. It may take us three."

Although the country had opened out much, for the next mile the rocks were even worse than they had been, for they were smaller and unstable. Many times we were forced up on the sides of the cañon, and the rocks there were small and would slip and turn with one's weight; then we were forced down into the stream and against dense brush, and finally, at the lower end, we frequently had to climb over rough rock shoulders which crossed our path. Here we began to find good-sized junipers, pines, and many scrub oak, and a little later a well-defined bear trail and many places where the bear had made a soft bed of shredded juniper bark upon which he had lain to sleep.

At 11 A.M. we were again at Goddard Creek, in that wonderfully beautiful Yosemite-like park of which I have spoken. It seemed even more like Paradise than when we had passed through it two days before.

Leisurely, we toiled back to our Simpson Meadow camp and at 4 o'clock were welcomed by Moffitt and Torrey, gave them the details of our trip, and heard the latest gossip of the meadow and of the "Who's Who?" of the parties there and of those who had passed through, the last three days. We were half-famished, and they served us with a huge and elaborate dinner, of which we ate voraciously and called it our "Enchanted Gorge."

* * *

When you return from a trip such as this into "*terra incognita*" (as Clarence King would say), your "unknown region" and your "unexplored country," you feel much elated, as though you had been the first to reach the North Pole or the summit of Mount Everest; but soon you begin to wonder just how many others may have preceded you into this your "No Man's Land," and you investigate.

We knew that Solomons had knapsacked it somewhere through this region in early days. We now know that in 1895 he crossed the Goddard Divide south of Mount Goddard and descended the whole length of Disappearing Creek—naming that stream, and Scylla, Charybdis, The Rotunda, and Enchanted Gorge. He kept copious notes and carefully described the Enchanted Gorge. The Colonel and I had descended the gorge in the darkness, and so missed some of the things of which he speaks. He says: "About half-way down the gorge, the eastern side exhibits some remarkable bronzed rocks. The coloring of the whole gorge is rich beyond description, especially when wet with rain, as it was when I saw it, but these bronzed rocks, as I have called them, are quite beyond anything I have seen in the mountains. They have a metallic luster and the hues are all shades of gold, silver, copper and other metals, sufficiently subdued, of course, to produce an exceedingly rich effect. The old ice is as usual responsible for the polishing that has brought out these colors from the dark rock." Mr. Solomons deserves great credit for the fine pioneering work which he did.

But you also find that there were still earlier pioneers. Mr. Lil A. Winchell, a man with a very great and intelligent love for the Sierra, in the year 1869, at the age of fourteen years, began his explorations, and since then, year after year, and for long periods, and for the pure love of it, has wandered through these mountains and cañons.

In 1896 Mr. Solomons asked Mr. Winchell these questions:

"Have you ever ascended Goddard Creek from the Middle Fork Cañon, and how far with animals? Or without animals? The large tributary (Disappearing Creek on my map) that enters Goddard Creek from the north, five miles above the Middle Fork?"

To these questions Mr. Winchell replies, in a letter from Fresno, March 30, 1896: "Have never taken animals *up* Goddard Ck. from Middle Fk., but have traversed entire cañon. Have been in upper cañon of Goddard Ck. (from its source, ten miles down), with a mule and jackass, and thence across to the timbered mountains S. E. (S. W.?), of its confluence with what you term 'Enchanted Gorge.' Have been up and across the affluent you speak of as entering Goddard Ck. from north to the head. . . . By infinite care, good judgment and *experience* on the part of the animals—to which the solution of difficult problems in trail-making should be deputed—it is possible to cross from upper basin of Middle Fork (San Joaquin) to Kings River waters. You can pass down Goddard Creek and finally cross the ridge between it and Crown Ck. drainage at a point opposite the head of Blue Cañon. One escapade is very filling though. Or you may continue to the Middle Fork. Understand that these 'possibilities' are to be accomplished under great difficulties, with much retreating, side-winding, back-tracking and many ramifications. I have had animals with me across this country. But I ought not to be too proud of it, and maybe I am a little harsh in my criticism of Mr. Fisk."

Mr. Winchell's reference to Mr. Fisk was in response to a question as to whether or not it was possible to take animals down the Middle Fork to Tehipite. He replied: "I don't advise the use of the trail (??!) down the cañon from Upper Middle Fork to Tehipite by skilled or unskilled horsemen. It is an act of cruelty not to be entertained. Fisk, in his desire to get to his mine early in the season [his mine was near the junction of Cartridge Creek], has taken his helpless beasts up that way three times and down *once*. On each occasion, he has maimed and killed numbers of his pack-train—one time losing four out of seven!"

Very recently I asked Mr. Winchell about this region which the Colonel and I had explored, and he replied, on March 12, 1924: "The immediate locality you visited has been many times trodden by early sheepmen (from the Inyo side) and prospectors.

"In 1879, I spent three weeks on foot with a companion in pros-

pecting for silver in all the region. . . . We investigated all the cañons and mountainsides for minerals.

"Besides myself, there were (before me) sheepmen from the Inyo side, who had been familiar with and had pastured every nook and corner of grass in all that great region. One favorite camping-ground was immediately under the shadow of Mt. Goddard on the south side. Pete Rambaud and Giroud were principal flock-masters. Frank Dusy, an early sheepman from Fresno County and who first pastured what is now called Simpson Meadow, was a very early explorer of the Palisade region and approached, one time, Mt. Goddard from his camp in the lower Middle Fork."

So, you may be sure, when you go into Sierran fastnesses, far from the haunts of man, where "no one has ever been before," where "no human foot has ever trod," and find a meadow no bigger than the palm of your hand, that the sheepman has preceded you. But in this Goddard Creek country you may rest assured that the meadows there were reached only with "great difficulties, with much retreating, side-winding, back-tracking and many ramifications." However, that was many decades ago, and the "ducks" are all overgrown with brush and the blazes are faded on the trees; but to you at least it is a "No Man's Land" and an "unexplored country."

The country is rough and the trials are many; but once you have been there, your moral fiber and make-up have been changed and strengthened, and you have before you a recurring flood of wonderful and inspiring views and memories which are everlasting.

My friend and neighbor Murphy was complaining to me about a "bunch" of six four-room bungalows recently crowded onto a small lot next to his home. I said: "Murphy, it's the advance of civilization." He cocked his head on one side and replied: "Civleization," said he, "civleization! If yez wants that yez got to go way way back into the high mountains."

Charybdis

PLATE IX.



LAKE AT HEADWATERS OF DISAPPEARING CREEK (ELEVATION 12,002 FEET)
Photograph by J. S. Hutchinson





MOUNT GODDARD FROM THE SOUTHEAST
Photograph by J. S. Hutchinson

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THE HIGH TRIP OF 1923

"And it is time to turn on the old trail, our own trail, the out trail,
And pull out on the long trail, the trail that is always new."

THUS writes Kipling of the sea. It is likewise true of the mountains. They never grow old, but from year to year the old trail renews itself, and as we follow it up new visions of beauty and glory arise before us. This is particularly true of the Sierras, and no mountains in the world draw you so strongly and hold your imagination with such power.

The trip of 1923 might properly be called a Yosemite Park Extension Trip, because with just a few exceptions we kept within the park boundary. This to the uninitiated, to those who *think* they know Yosemite, might seem tame and unromantic; but Yosemite does not end with the valley proper, however wonderful and splendid and new that always is. It does not end with the southern boundary, flung out among the mighty Sequoias, nor eastward over Mono Pass and down Bloody Cañon. Its confines stretch far to the north and embrace some of the most splendid scenery in the High Sierra. It was this northern extension where we spent most of the summer—and such a summer! To give an adequate account is impossible in a short space, because of the numerous and diversified activities. For instance, while the main party followed its way up over Yosemite Falls down to the Grand Cañon of the Tuolumne to Pate Valley, to Benson Lake, to Matterhorn, Virginia Cañon, Tuolumne Meadows, Glacier Point, etc., the knapsackers were numerous and strenuous in their explorations. In fact, there has seldom been a trip where more knapsacking was done. Knapsacking means youth and a real love of the mountains. And that was true. There was indeed much young blood in the party. There were many who were finding out for the first time what it means to sleep beneath the stars in a sleeping-bag and hear the dash of the mountain streams. And again, the trip was varied almost infinitely by its comprehensiveness. Some of the party touched almost the extreme southern border, a large number crossed the eastern border, and the entire party set foot on alien soil at Peeler Lake.

From the first camp-fire in the valley, when the Great Chief took command and we felt the thrill of comradeship in the regathering of the clans, to the last camp-fire in Mono Meadows, when

... "Into the fire of Spring
Our winter garments" ... we joyfully flung,

there was not a dull moment; although there were many strenuous ones. From the lighting of this same camp-fire, when the great master of ceremonies, twin brother of the Great Chief, introduced Professor Joe Le Conte and other celebrities for after-dinner speeches, but resolutely refused to allow them to open their mouths, holding them by the hand and doing all the talking himself, down to the opening of King Tut's tomb, there was a constant recurrence of the most unusual programs, both of music, song, wit, and wisdom.

THE CHIEF GOES TO SEE HIS MOUNTAIN

After the first day's tramp up Yosemite Falls trail, we camped on Yosemite Creek. Here we initiated the lusty class of '23 under the Gold Dust Twins and listened to the first lecture on birds and trees by Dr. Bryant. And then to Grizzly Meadows—and the trip is on. Ten Lakes Basin beckons the knapsackers, but the less hardy were allured by camp-fire tales of Colby Mountain lying some few miles away—Colby miles away—just a nice little trip for a day, where the vision is unequaled, looking down as it does into Muir Gorge and up and down the Grand Cañon. And the less hardy went. And they saw, and they returned, not together, and not entirely by daylight, and not altogether by starlight. It is a wonderful thing to get properly initiated into the mountains and into the day's tramp, measured by the real measurer and led by the real leader. Hardtack is good, cheese is better, and tea is a drink of the gods! But he who led them dared not face the new initiates, but a day ahead of time, with a few companions, slipped away, dropping down by unknown compass-readings, down through uncharted aspen and alder thickets in search of the Pate Valley trail.

PATE VALLEY AND MUIR GORGE

Pate Valley and Muir Gorge were from the beginning considered by all as the *pièce de résistance* of the trip. Only a few hardy knapsackers coming down from Tuolumne Meadows had ever reached it. Stories had come to our ears of what they were and what they looked like, but now we were to behold with our very eyes the vision of this

fabled region. It was hard to believe that we were actually on the trail—and such a trail!

From a vantage-point overlooking Hetch Hetchy, where many wept for the glory of that matchless valley lost forever, we began our descent. The new trail recently put in by the Government, worthy of all praise, has opened up what will be a playground for all future generations of mountain-lovers. Morrison Creek does not flow or tumble, but where you reach it by this wonderful trail literally drops out of the sky, plunging down through fern-covered boulders seemingly from the sheer cliffs on whose giddy edge the firs swing their rejoicing heads. And you reach Pate Valley down, down, down, by a stairway trail cut in the living rock part of the way, with an ever-changing vision of the Grand Cañon and of the Tuolumne before you. You are so anxious to get to the bottom that you hardly wait to quaff an ice-cold drink from the tumbling stream. Then the air begins to encircle you with fragrant perfume. The real balm of Gilead creeps into your soul as you near the floor of the valley, and the feeling comes over you that you were "the first that ever burst" into that wonderful land. The pine-needles are so thick in places that not a sound is heard. Wild flowers grow in such luxuriance that you are literally embowered with them. And the glory of the azalea with its haunting fragrance is ever present.

Pate Valley was an ideal spot in the golden age of the Indian. Lying almost at the same level as the Yosemite, it gives evidence everywhere that it was a favorite haunt. It is among the few places in California where there still remain Indian pictographs. As it is impossible to convey the idea of a strain of music, of the perfume of flowers, or to translate an intimate meaning from one language to another, just so words cannot convey nor photographs portray the charm of this valley. The throne-room with its overarching roof of golden-cup oaks puts one in immediate touch with the glory that was once Indian. One pictures stirring scenes of mighty men of war gathered together in this council-hall or domestic groups of toiling mahalas busy at the mills. The mills for grinding the acorns are numerous. The pestles are still there, and by a little searching others were found in great quantities at various points in the valley, some even down on the water's edge, where with a slight stretch of the imagination the braves might be angling mightily for the wily trout, while crooning squaws mingled their voices with the dashing stream.

A charming walk a thousand feet above the valley to what we called the hanging gardens gave other evidences of the extent of the Indian occupation. In one flat granite rock we counted twenty-four mills, most of the pestles still being in place. But Pate Valley is not only interesting and fascinating because of itself and its ideal climate and scenery. It lies just below that mystic place known as Muir Gorge. One of the wits of the Sierra Club, who fought his way down from the meadows through the brush and chaparral, said that after he had traveled all day he looked back and found that he had passed only one manzanita bush! And the party led by Mr. Colby that fought its way up Muir Gorge and around the cliffs which had to be encircled in order to reach the entrance found that this still was true. The manzanita-chaparral bushes are thicker than ever and the young conifers stand like bristling bayonets everywhere. But the vision of this wonder-spot is worth all and more than all that it takes to reach it. White Horse Cascade is second only to the water-wheels at their best, and the enthusiasm of the knapsackers as they came back knew no bounds. They had really arrived. Muir Gorge was there in all of its magnificence. They had seen the vision of the cliffs swinging a mile above and heard the thunder of the Tuolumne as it leaps from its granite walls.

The memory of our camp-fires here, beginning in the sunset's glory and ending with the moon swinging high above us, must ever remain with everyone as among the most charming experiences of the trip, and particularly the music by the Wrights, who throughout the trip were so generous and so welcome.

After several days of fishing—and such fishing!—and tramping—and such tramping!—and the exploration of Piute Falls and other points of interest, we were off to charming Benson Lake, and from Benson Lake to Kerrick Cañon.

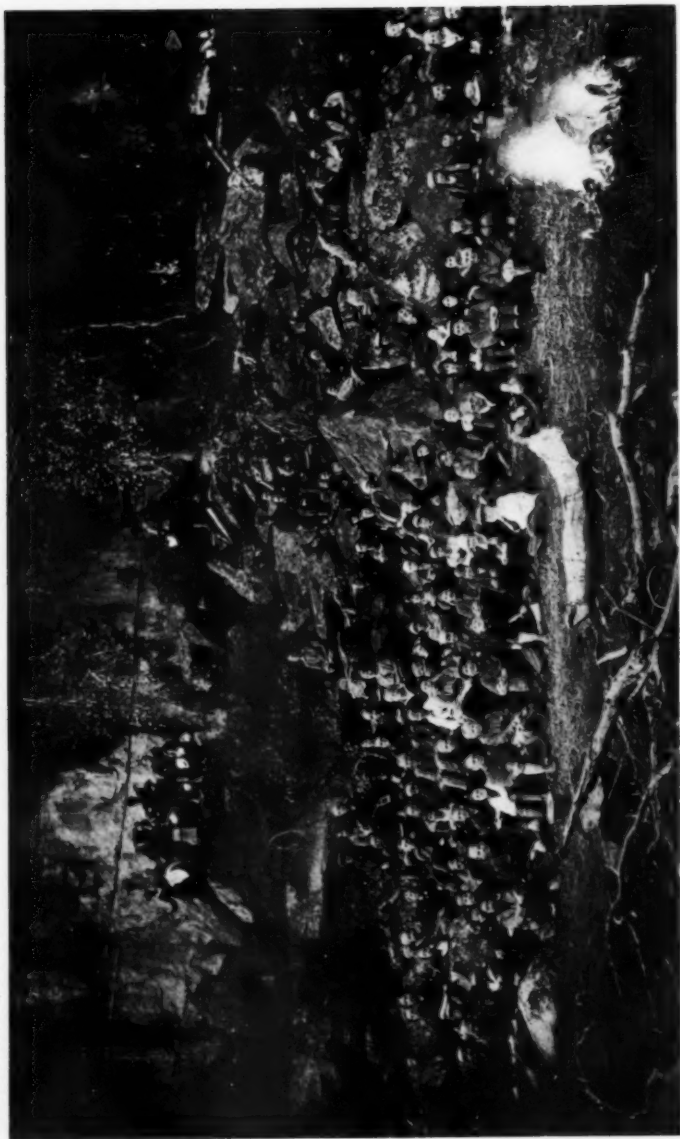
Tower Peak marked our farthest north and proved possibly the most strenuous single day's hike of the entire trip—quite equal in fact to Colby Mountain. This was the second ascent which had been made of this peak by parties of the Sierra Club. The first was in 1911. An early start and a late return, with many evidences in the meanwhile that Tower Peak, like Smith's Peak above Hetch Hetchy, was really on wheels, finally turned the trick and brought the adventurers back to the camp-fire and songs under the light of a silvery moon.



PLATE
XIV
OF
XIV

PATE VALLEY, TIOLUINE CAÑON

Photograph by Ansel E. Adams



CAMP-FIRE IN FATE VALLEY, 1923 OUTING

Photograph by C. O. Schneider

Crown Point gave the largest return in sightseeing and general satisfaction measured by the efforts to reach it. Just a few hours saunter, and behold the Sierras were yours!—Sawtooth, Matterhorn, Cathedral, Lyell, and all the rest of the dignitaries, and below on every side lakes; and at your very feet Peeler, beautiful as a gem, rocking its multi-colored dancing waves in its granite cup and rejoicing in the sunlight and the refreshing snows that encircle it.

"WE ARE TWENTY, WE ARE TWENTY; WHO SAYS WE ARE MORE?"

For many years the Sierra Club's high trips have been facing dissolution because of the threatened retirement of the two great leaders. "We have done our share," they say. "It is time that the torch should pass to other hands. We are getting too old. Let the boys do it." But in Pate Valley when the call came for a searching party for someone who was lost, President Tap relented, shook off the intervening years, and fought his way up through the chaparral with the boys in the gathering shadows of night with the same enthusiasm and prowess with which he came down, shirtless, twenty years ago. We had gained one leader back. But what shall we say of the knapsacking trip of thirty led by the Chief of the Clan, William E. Colby? The most strenuous days of what might be called the golden days of the Sierra Club, if these have in any way passed, have nothing to show more adventurous or more lasting in impression. There are certain rare spots in the mountains that have acquired peculiar names because of the peculiar effect they have had upon the mountain climbers. Among those the old guard will recall "Pants Pass," so named from the lasting impression made by its shifting granite boulders. This three-day knapsacking trip starting from Kerrick Cañon and ending at Tuolumne Meadows has added one more phrase to the Sierra Club lore. There is now definitely charted in the mountains "Never Again Pass." From Kerrick Meadows over the shoulder of Crown Point to Rock Island Pass, thence to Snow Lake via Slide Cañon, to Barney Lake, fighting alders for miles, camp was made on Cattle Creek above Twin Lakes; tired, happy, blessed! The stars shone above. But the camp-fires are unlighted; blessed sleep! And then the second day, when the frost was on the mountain, over the hills and far away, up, up, up, over snow and granite to Never Again Pass. It deserves a real chapter of its own, and this chapter should be written by the leader who was restored to

perfect youth. Here the wheels of time turned back and he marked twenty again. Oh, the vision of the mountains, the joy of the lakes! Oh, the life-giving granite that crunches beneath your feet as you leap from crag to crag and breathe the winds of the gods!

The third day finds them under Dunderberg at Summit Lake and over the divide into Virginia Cañon. If you think you know Yosemite and have not seen this wonderful lake region you have much to learn. Without exaggeration, it is very much doubted whether there is any spot in the entire Sierras more distinctly beautiful and more characteristic of the finest mountain scenery.

The main party returned from Kerrick Cañon to Benson Lake where the only unfortunate incident of the trip occurred. Miss Estelle Fulton, while riding horseback, was thrown in Seavey Pass and found some hours afterwards unconscious. A relief party from the club volunteered to bring her back the way we had come, via Pate Valley and the Tioga Road, while the main division joined the knapsackers in Virginia Cañon and on to Tuolumne Meadows. It will ever be a matter of gratification to those who took part in the relief expedition, as well as to the club members as a whole, to recall that the Sierra Club is something more than a hiking club. It is a club of friends, and it is this spirit that has made it through the years an organization unsurpassed.

During our stay in Pate Valley, at the request of Mr. Mather, the itinerary of the club was somewhat changed, in order that we might meet President Harding on July 29th and give him a special camp-fire program on Glacier Point. Consequently our hoped for visit to the Meadows was materially shortened, and forced marches were necessary in order to keep our engagement. It was indeed a keen disappointment to the club that the sudden illness of President Harding, which afterward proved fatal, frustrated all of our plans for this carefully arranged and eagerly anticipated meeting with our Chief Executive and his party. The club not only appreciated the signal honor of this invitation for a personal meeting with Mr. Harding, but we had looked forward to it as an opportunity of being able to be of some service in bringing to him at first hand and emphasizing the importance and magnitude of our national forest problem. This feature was, however, in a measure partially accomplished by the reception and program at Glacier Point Hotel, which was presided over by Mr. Mather and participated in by a number

of the presidential party, among them being Senator Shortridge, who addressed the gathering in a very characteristic speech. It is needless to say that our sorrow was great on hearing of the death of the President a few days afterward and that we shared most keenly the nation's loss.

The last week of the trip was somewhat like gathering up golden nuggets which had been overlooked in our hurry and greed of former years to follow up and exhaust the great mother lode. Illilouette Cañon, which seemed almost a myth up to this time, proved charming and beautiful and worthy of all praise.

A side trip to the upper reaches of the South Fork of the Merced River gave opportunity for the ascent of Merced Peak and a visit to other points of interest, notably Fernandez Pass and Breeze Lake. Merced Peak commands an extended view of the Sierras and amply repaid us for the climb. The trout-fishing in this section was particularly fine, as, in fact, it had been throughout the entire summer.

As a whole, the High Trip of 1923 was an unqualified success, if we may judge by the things for which the Sierra Club stands; noticeable was the general good spirit and camaraderie. However distasteful it may seem to the leaders themselves, it is only a due and wished-for expression of all the members of the club that Mr. William E. Colby, chairman of the Outing Committee, and President Clair Tappaan of the club should know how universal and how generous is the appreciation felt by every member of the party for their devotion and responsible leadership.

FIRST ASCENT OF THE MINARETS

BY C. W. MICHAEL

ON the morning of September 2, 1923, Mrs. Michael and I left Tuolumne Meadows en route for the Minarets. For several years we had thought of these crags as the only interesting mountain in the vicinity of the Yosemite that had not been climbed. And at last we were ready to make the attempt.

With sleeping-bags and ten days' provisions we were not pressed for time; so we had a pleasant and leisurely ramble to our base camp. We went over Donohue Pass, and then holding as much of our elevation as possible we cut across country. We crossed the upper end of Thousand Island and Garnet Lake basins and went into camp on the shores of Lake Ediza. Lake Ediza is the second lake of the Shadow Lake chain.

In the chosen camp we were directly under the Minarets and about seventeen hundred feet below the summit. It was our aim to climb to the summit of the highest crag of the Minaret Crest. From our camp on Lake Ediza and from the ridge above camp we had a fine opportunity to study the east face of the mountain. From our camp it looked possible to cross the glacier to the base of a steep chimney which led up among the black crags to a point just north of the highest peak. We were not equipped for ice-work, however, and, besides, the ice-front appeared steep and dangerous. It may have been possible to cross the glacier, but this idea we gave up in favor of a notch farther north. Our idea was to go through this notch and work our way along the west face of the mountain to the summit.

Early on the morning of September 6th we left camp to make the effort. The first mile of the journey led across a sloping meadow, and then we took to the rocks and climbed to a rounded glaciated ridge which led to the base of the mountain just north of the glacier. A hundred yards along a snow-tongue brought us to the entrance of our chimney. It was a stiff climb up the chimney, but there were good handholds and no really dangerous places. On reaching the notch, a chimney steeper than the one we came up dropped away on the west side of the mountain. On either side of us sheer walls rose

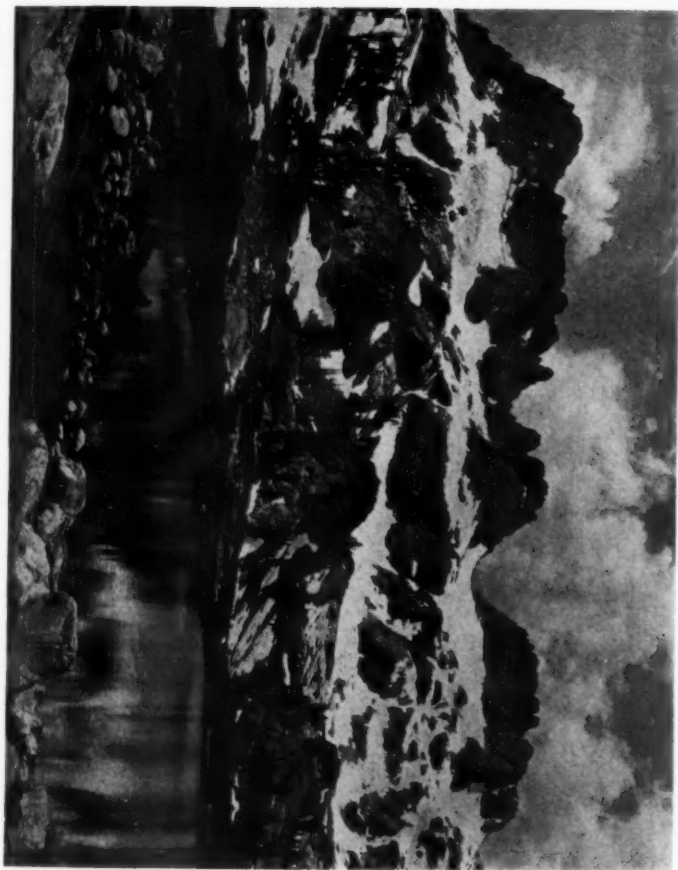


PLATE XIII.

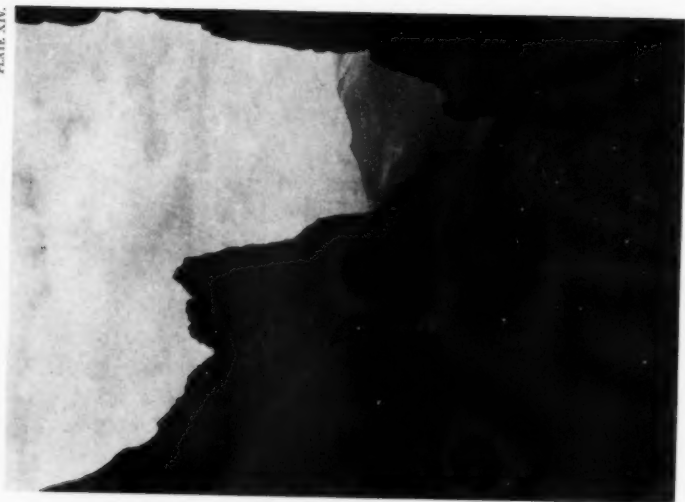
THE MINARETS

Photograph by Erwin E. Richter





HIGHEST POINT OF THE MINARETS
Showing the chimney which leads to the portal
at the base of the pyramid
Photograph by C. W. Michael



LOOKING OUT OF THE CHIMNEY
Photograph by C. W. Michael

five hundred feet to a pinnacle. By dropping down the west chimney for a short distance we were able to work our way across the west face of the mountain to a parallel chimney. This chimney led into a cul-de-sac, and sheer walls forbade farther progress toward the real peak. Defeated in this attempt and discouraged by such unprofitable and dangerous climbing, I was ready to give up, but my climbing partner was not tired, and suggested that we go down the horrible chimney which dropped away from our notch to the west. This we did, and on reaching the talus at the base of the crags we slowly clambered over the great boulders. Moving south, we examined each chimney that led up the west wall of the mountain. Finally, after about a half-mile of this rough but not dangerous going, we came to a very narrow chute which appeared to lead straight to the sky-line directly north of the main pinnacle. Perhaps this route was feasible; at least, it seemed to offer us our only chance. The crack was so steep that but little loose material found lodgment, and often the walls came so close together that we were able to brace ourselves between them. For the first two hundred feet the going was fair, and, due to the steepness of the chimney, we made elevation rapidly.

Then we came to our first real difficulty. A great boulder about fifteen feet in diameter was wedged between the walls, blocking our way up the chimney. On examining the situation we decided that we could climb around the boulder and get back into the crack. A few rough niches and two good handholds made it possible to climb out of the chimney to a narrow ledge about fifteen feet above us, and by way of this ledge we reached the chimney above the wedged boulder.

Another hundred feet up the crack brought us to a second wedged boulder. The second boulder was not so large, and we were able to get around it and back into our pet crack without any dangerous climbing. The chimney now widened out some and we were able to climb side by side, and thus avoid the danger from rolling stones. This precaution was hardly necessary, however, as there were practically no loose stones. Looking up the chute, we could see another obstacle in the form of a wedged boulder, but having successfully passed two such obstacles we went serenely on, feeling confident that we could circumvent the barrier. As we approached, however, we were amazed and baffled. This third boulder was as large as a good-

sized building, at least thirty feet high, and jammed between the steep walls so snugly as completely to block our way. Once more we must climb out; but this was to be a longer climb, and the walls were sickening in their smooth sheerness.

The right-hand wall just below the boulder was somewhat broken. There was a series of rough niches and two projections about an inch wide which gave the wall a ladder effect, with several rungs missing. Unfortunately we were unable to reach the lower rung. Down the chimney some thirty feet below the barrier was another possibility. A series of projections offered a risky route to a ledge that led up and beyond the boulder. I made the ledge, but the climb was just a little too thrilling to suit me. Thoughts of coming down the wall gave me an uneasy feeling in the region of the stomach. As I sat on the ledge looking down into the chimney I felt that I had tempted fate. The climb had been too risky, and I could not bear to see Mrs. Michael take such a chance. She agreed to give up the attempt, but urged me to go on if there was a chance to make the summit. I took off the light knapsack that I was carrying, left the kodak behind, and again started up the chimney. Seated under the great boulder, Mrs. Michael was quite safe. Any rocks that might be started in the chute would bound far over her head.

The final climb in the chimney was easy, and the notch was reached without further adventure. Climbing alone in such surroundings gave me no pleasure. I missed the steadying influence of my climbing partner.

At the head of the chimney, wedged between the two pinnacles that formed the V-shaped notch, was another great boulder. This boulder was jammed in such a way as to leave a portal. I stepped through the portal and looked down across the glacier. Directly below lay Iceberg Lake, the third of the Shadow Lake chain. On the next bench below were Lake Ediza and the little clump of hemlocks where we were camped. Balanced on the divide, the last lake of the chain appeared to hesitate in its choice of the two watersheds. The view was indeed wonderful; but Mrs. Michael was waiting alone in the awful chimney, and I wanted to have the summit for my own and be on my way back.

I turned away from the view, stepped through the portal and began the climb to the final pinnacle. The last three hundred feet of the mountain were the most difficult three hundred feet that I ever

had the pleasure of climbing, and climbing alone I failed to get the full joy of adventure.

The mountain mass composing the Minarets is of solid rock and there is a very slight amount of loose material. The final peak is particularly solid and pyramidal in shape, and, like a pyramid, great steps lead to the apex. These steps are very irregular and often missing, a condition which makes progress slow and uncertain. The rock mass is jointed in such a manner as to give a sloping surface to each step, and the steps are from four to five feet high. The angle of declivity of these sloping steps, or ledges, reached about the last degree of steepness that one could stick to with safety. Often they were smooth and without a single handhold. In order to climb from one to another it was essential to place elbows, arms, and as much of one's body as possible against the surface of the step and then to squirm about until one's knees could be raised to the position necessary to propel the body forward. Some of the ledges were not more than two feet wide. To climb onto one of these narrow ledges required skillful maneuvering in order to avoid butting one's head against the wall. By careful study and by retracing my steps numerous times many of the bad spots were avoided.

Knowing that handholds and footholds seem to be missing, and that the return route never looks the same, I was careful to mark the upward route with ducks. This precaution meant that every time I had to retrace my steps it was necessary to pick up the misleading ducks. It was slow work, and in making the last climb I zigzagged many times, and once completely spiraled the pyramid. The ledge that took me across the west face of the pyramid was one of the most thrilling. This ledge was about two feet wide and held to the same sickening slope of so many of the steps. The black sheerness of the last crag rose to its peak not far above me. With nothingness on one side and a sheer wall on the other, I had a feeling as I crossed the ledge that the wall might give me a little shove on the shoulder and tip me into nothingness. The ledge crossed, there was still a bit of difficult climbing, but the goal was in sight, and this gave me courage to make the last effort. The topmost rock had a flat surface several feet in diameter. A beautiful place to build a cairn, had there been any material! As it was, I had to be contented with a few small stones piled together.

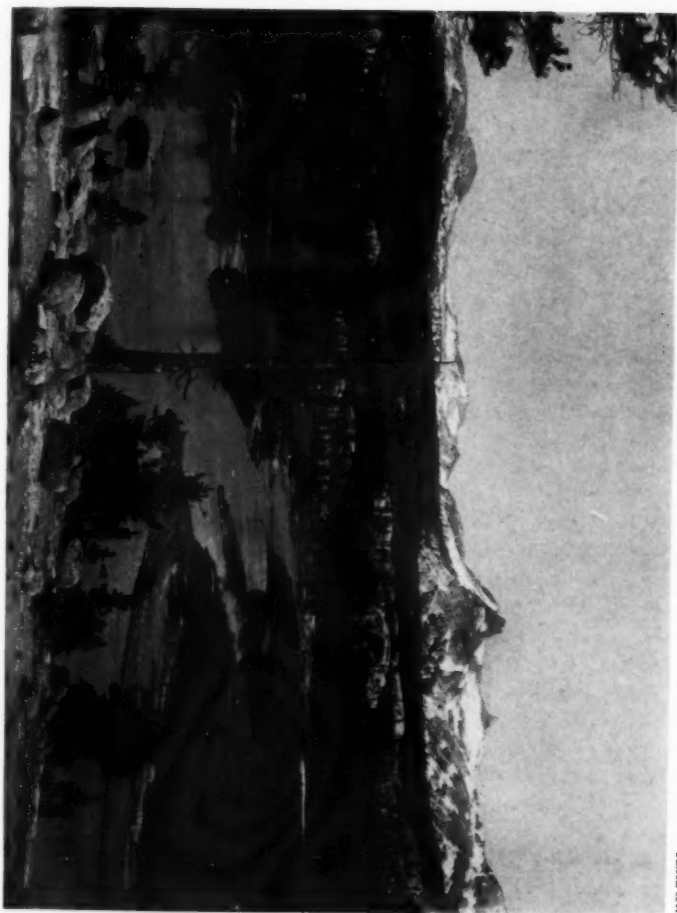
As far as the eye could see, a billowy sea of mountains rolled

away to the south. Directly below to the west lay the desolate upper watershed of the North Fork of the San Joaquin River, and across this cañon and beyond Isberg and Long Mountains could be seen the Merced Group. Looking east across the wall of the Middle Fork could be seen the distant ranges of Nevada. The unique view is the one to the north. The highest point of the Minarets lies at the extreme southern end, and looking north one gets a close-up view of the whole wild jumble of peaks that forms the crest of the mountain. A double row of cathedral spires for the distance of a mile would give one a good idea of how the Minarets look when viewed from this point. Mount Ritter, just beyond, blocks the distant view to the north. Mount Ritter is a grand pile, but is least impressive from this point of view.

It was a simple matter to follow my ducks back to the chute, and the sloping steps were much easier to descend than to climb. Once in the chute, it was a straight drop to the talus, and there was no choice of routes and no possibility of getting off from the course. Grains of sand and gravel dropping down the chimney announced my approach, and Mrs. Michael was expecting me when I arrived. The knapsack was a welcome sight, for it marked the spot of the last real danger of the return trip. I sat on the ledge above the chute and took counsel with my partner regarding a choice between the two desperate routes down the wall. The decision was in favor of the upper route—"the ladder with the lower rungs missing." In case of a slip, the fall would be not nearly so far as it would be by the lower route, and, besides, the landing place appeared to be better.

When ready to make the effort, I tossed the knapsack into the chute, took one last look about, and then, facing the wall, I swung over the ledge. Mrs. Michael standing thirty feet below me, directed me as to the best handholds and footholds—she could see the projections and the possibilities better than I. Cautiously I came down the wall, and from the last rung I dropped into the chute. I was somewhat shaken, but not hurt. We did not linger, but started at once down the chimney. The talus was reached without further adventure, and then we traveled southwest for about half a mile to take photographs of the highest peak and of the chimney.

About three P.M. we left the shores of a frozen lake and started back to camp. After what we had been through, the chimney of the morning did not look so steep on the way home. A slide across the

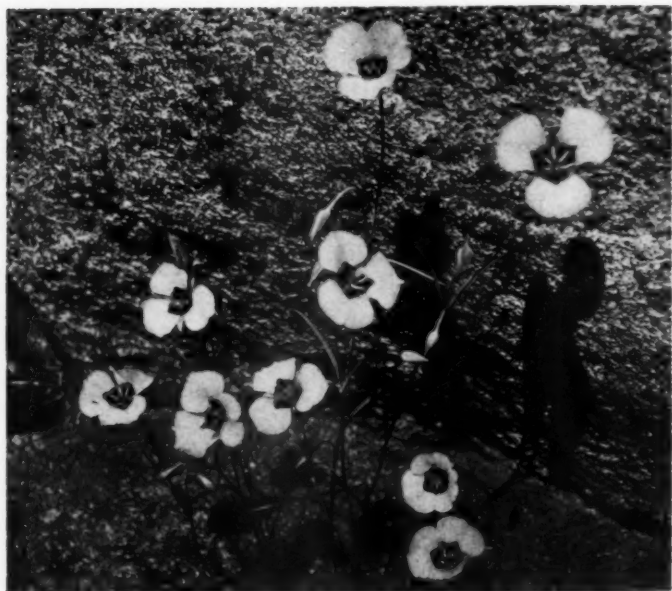


TIOLINE MEADOWS
Photograph by Erwin E. Richter





BRYANTHUS AND CASSIOPE
Photograph by C. O. Schneider



MARIPOSA LILIES
Photograph by C. O. Schneider

snow-fields and then easy sloping meadows brought us into camp a little after five o'clock in the evening. We felt we had earned a rest and a good meal, but we were far from exhausted.

There is no friendliness about the Minarets. When seen from the distance they wear a black and sinister look. Precipitous walls rise to the sky-line, where beetling crags cut raggedly against the horizon. There are no gentle slopes to beckon one to the summit; rather does the scowling sheerness warn one off. The spirit of the mountain is the spirit of defiance, and in every aspect there is a challenge to the climber.

IN MEMORIAM: IDA YOUNG AGNEW



MRS. AGNEW, wife of Jesse B. Agnew, passed away at San Diego, October 3, 1923. She was born in Visalia, California, April 28, 1869, and lived there for most of her life. She was a warm friend of the Sierra Club and was endeared to many of its members. In 1912, she and Mr. Agnew accompanied the club on the Kern River outing. On many occasions she extended hospitality to members of the club at her summer home at Horse Corral Meadows. A gift of land in Kings River Cañon to the Sierra Club by Mr. Agnew in memory of his wife is recorded elsewhere in the BULLETIN.

At Christmas-time, 1923, Mr. Agnew sent to a few friends a card with the following message, written twenty-five years ago in the guest-book of a friend in Honolulu:

How lovely are the jewels of this isle! The island is an opal, encircled by emerald hills; and Diamond Head is a cameo, and the whole is surrounded by a sea of sapphires, amethysts and turquoise. The air is full of radiant diamonds of sunshine, raindrops and rainbows, and every evening the scene is glorified by a sunset of gold and rubies. But the most beautiful jewels that I have gathered during my visit here are my pearls of memory. The memories of the dear friends I have made in your home; and the happy hours I have spent here as your guest.

Yours lovingly, IDA Y. AGNEW.

A SHORT TRIP IN GLACIER NATIONAL PARK

BY WALTER L. HUBER

WHEN we arrived at Glacier Park station, during the summer of 1923, for a short sojourn in the park from which this little railroad station and splendid hotel derive their names, we hoped that we might be acting as scouts for a real Sierra Club outing to follow at some later time. Not until we returned and found Mr. Colby, who has led all of the Sierra Club's twenty-two annual outings, fired with enthusiasm and planning a hurried reconnaissance trip to the park, did we appreciate that our dream was to be fulfilled this coming summer.

Mrs. Huber and I had long planned to visit this park, and always with the thought of exploring it thoroughly, but finally found ourselves at Glacier with only eight days at our disposal. It was necessary to confine our rambles to that part of the park which had been developed for tourist travel by the construction of comfortable hotels and chalets, leaving for a later visit that splendid undeveloped wilderness which is to be the scene of much of the Sierra Club's 1924 outing. Although we utilized the Glacier Park Hotel Company's comfortable motor stages for skirting the base of the real mountainous region and enjoyed the launch ride across St. Mary Lake, nevertheless, like true Sierrans, we spurned the muleback caravans and took to the trails afoot, enjoying the freedom which only those who tramp the trails of the high places know.

The motor trip across the plains at the base of the mountains was enough to show us that we were in a flower garden and that the Gardener did not permit his plants to suffer from drought. This first rain-storm did not actually get well under way until we had motored to St. Mary Lake and had crossed it by launch to Going-to-the-Sun Camp. The afternoon was a stormy one; but now and then the clouds lifted to give wonderful views of those magnificent cliffs which rise so abruptly from Upper St. Mary Lake. This hide-and-seek game of the clouds succeeded several times during the afternoon in tempting one interested in photography far enough from shelter to receive a complete drenching from the squalls which inevitably

followed a particularly picturesque cloud-setting. The patter of rain on the shake roof of the chalet during the night offered little encouragement to hikers awaiting an opportunity to try new trails. Another day began without improvement. Indeed, the clouds did not even play hide-and-seek now, and we were only aware of the wonderful cliffs about us because of memories of the views of the day before. Finally, a west wind began and had soon increased to such velocity that we well understood why the roofs of the Swiss chalets were so heavily weighted with boulders. By evening the clouds were dispersing.

Our third morning was beautiful and clear. Except for some mud underfoot through forest and meadows, it was an ideal day for tramping the Garden Wall Trail. This trail passes through one of the finest wild-flower gardens I have ever seen. It passes the head of St. Mary Lake and winds up through a forest area along St. Mary River and Reynolds Creek, finally emerging on the rocky mountain-side crossing the Continental Divide at Logan Pass. Instead of dropping on the western side, it continues along the Garden Wall, as this portion of the Continental Divide is appropriately called, almost on a contour, revealing views for which even the seasoned mountaineer is not able to offer equals. Finally, after what seems a full day's tramp, particularly for a first day, this wonderful trail leads to Granite Park, where a couple of stone buildings have been constructed on an extensive bench on the cañon wall. A more sightly view could not have been found. To the northwest a wilderness of interesting mountain peaks in that little-developed region which the Sierra Club will explore during the coming summer; more northerly Mount Cleveland, the highest peak in the park; and directly across the great cañon of McDonald Creek stands Heavens Peak—beautiful at all times, but always different in the changing light.

We had heard strange tales of the accommodations at Granite Park from some of the tourists not accustomed to mountaineering; had heard the sleeping-quarters in the stone hut likened to a jail, but we had no such feeling. It is hard to see how anyone can have thoughts of being in jail with the freedom of the great out-of-doors so evident on every hand. Although my stay was brief, the views from this friendly little camp have recurred to me so many times during the succeeding months that I long to return and further enjoy them and to become better acquainted with the many specimens

of wild life along the Garden Wall Trail. These animal friends have no fear whatever of mere human beings, nor was the bear family which visited Granite Park chalet much concerned over our presence.

From Granite Park the summit of Swift Current Pass is reached by an easy climb. Here the Continental Divide is recrossed and, by a steep descent, McDermott Lake is reached. The lake is beautiful, and more hospitable than Upper St. Mary Lake—even if not so rugged. This is the site of Many Glacier Hotel, which has all of the conveniences offered by the best hotels of any of our cities. With its beautiful setting, it has an appeal to those who do not enjoy hob-nailed boots and who have not acquired the love of the trail.

From Many Glacier we returned to Going-to-the-Sun Camp and again took the trail around Upper St. Mary Lake, but this time followed St. Mary River to Gunsight Pass, where we crossed the Continental Divide and dropped down a short distance to Sperry Chalet. A day's stop afforded an opportunity to explore Sperry Glacier, one of the largest in the park. A tramp of a few miles and a drop of some thirty-five hundred feet brought us to Lake McDonald, the largest lake in the park. An evening launch ride of more than eight miles to the lower end of the lake remains a very pleasant memory. The only regret was that by an auto ride of three miles from the lower end of the lake the railroad was reached at Belton, and the homeward rail trip begun. However, Belton will be the beginning as well as the end of the outing for 1924.



MOUNT WHEELER FROM MUDCROFT LAKE, GLACIER NATIONAL PARK
Photograph by Walter L. Huber





GRINNELL GLACIER FROM LAKE JOSEPHINE, GLACIER NATIONAL PARK
Photograph by Walter L. Huber

HIGH SIERRA CAMPS

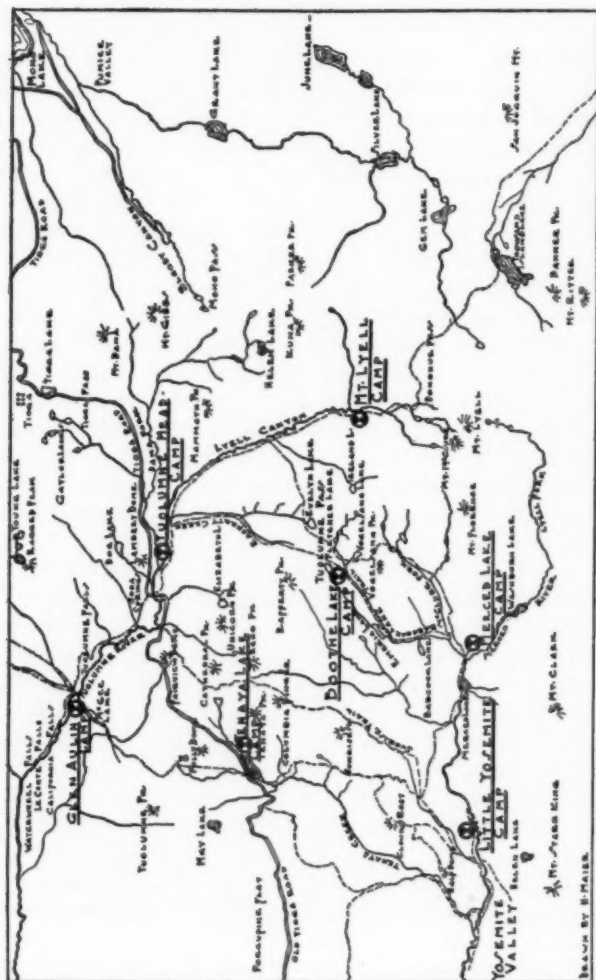
BY ANSEL F. HALL, CHIEF NATURALIST, U. S. NATIONAL PARK SERVICE

HAVE you felt the call of the Big Country? If you have ever camped in the High Sierra never a year will pass but that the first bright days of spring will send you to the storeroom or attic in search of a rather vague something. You may remember a broken fishing-rod, or perhaps a pair of boots that need new hobnails, and before you realize it you are surrounded by out-of-doors equipment that seems to have brought home the very essence of the open. What a thrill comes with the discovery that the old sleeping-bag still bears a faint pungence of balsam boughs and an incense of burning pine pitch that whispers of starlit nights in the high places! Battered boots with smooth hobnails could tell if they would of the exploration of unmapped uplands and of climbs to wild heights—heights that revealed a vastness that lured to the country beyond. A scuffed camera, a canvas duffle-bag, a rod broken in a fight with a three-pound trout—all these set you to dreaming of days in the open, and finally the discovery of well-worn contour maps marked with your own corrections sets you planning to explore the cañons and uplands that lie just beyond your ken.

Always, however, there have been difficulties in planning a trip into the High Sierra. Few of us could go into the mountains as did John Muir with no blankets and with only a small bag of crackers and tea for nourishment. Even though we had the physical endurance for such a trip, fatigue would rob it of its inspiration. There are today those who shoulder a fifty-pound knapsack and wander in the high country for two or three weeks at a time; but with all its freedom knapsacking is tiring work at the best. Traveling on the trails, with camp equipment packed on burros, mules, or horses, is a very agreeable way of seeing the Sierra, but is not without its disadvantages. Chief among these are the comparatively high cost if guides and packers are hired, and the necessity of keeping to the main trails, of camping near grazing lands, and of frequently searching for strayed animals. During the past two decades the annual Sierra Club encampment has been practically the only way of visit-

ing the High Sierra at a low cost and without troublesome transportation difficulties.

The problem of making the great back country accessible to everyone who has in him the least spirit of adventure has been one that



has confronted the National Park Service for some time. Now, at last, it has been solved by the establishment of "hikers' camps" at frequent intervals in the scenic high montane parts of Yosemite National Park. These make it possible for anyone to spend weeks or months wandering from place to place in the High Sierra, carrying no pack, but always being certain of sleeping accommodations and food at the end of each day. Three such camps were started by the Yosemite National Park Company during the season of 1923 and seven will be maintained during 1924, others being planned for the future.

Hikers' camps are not intended for "dudes." They were opened for those who wish to get away from the overcrowded tourist centers and live with the vastness of the big country. Comfortable beds and wholesome meals are furnished each for seventy-five cents. With plenty to eat and a good bed, what difference to a hiker if he eats from enameled dishes instead of white china or sits on a log by the camp-fire instead of in the patent folding-chair of a camp de luxe.

To give some idea of the portion of Yosemite National Park that is opened up by the seven new camps, let us make a brief tour of inspection. After a leisurely half-day climb from Yosemite up the scenic Vernal and Nevada Falls Trail one finds one's self on the level forested floor of Little Yosemite Valley. Here, near the site of the ancient Indian village of Kah-win-na-bah, stands the first of the hikers' camps. The position is particularly well chosen. The cañon itself is remarkably scenic but almost unknown, because the main trails climb around its precipitous sides. We have thus a major cañon within seven miles of Yosemite that offers the unique attraction of being as wild as was the larger valley half a century ago. The new Little Yosemite Camp is a convenient stopping-place if one wishes to break the trail trips to Clouds Rest, Half Dome, Merced Lake, or Glacier Point. Besides, it is a good base camp from which to explore the little-known Starr King Plateau and Helen Lake region. Three hikers' camps lie within one day's walking distance. Tenaya Lake Camp may be reached by climbing to Clouds Rest, thence following the Forsyth Pass Trail to Tenaya, a total distance of about nine miles. The beautiful alpine Sunrise Trail leads northward past Cathedral Peak to Tuolumne Meadows Camp; a full day should be spent on this exceptionally scenic trail. To the eastward the main trail veers to the north of Little Yosemite and climbs gradually in about nine miles to Merced Lake.

Those who have climbed to Vogelsang Pass or have followed the Babcock and Emeric Lake Trail to Tuolumne Pass will remember the splendid park of Jeffrey pines that stands where the trail leaves the main Merced Cañon and branches up the McClure Fork. Here, a mile above Merced Lake, stands Merced Lake Camp. The region is one of great beauty. The glaciated cañon cuts eastward deep into the heart of the mountains. Through it runs the singing Merced, now plunging over cascades, now flowing deep, now swift, and now loitering for a time in placid Washburn Lake. Not only here, but also in the McClure Fork, Babcock Lake, Bernice Lake, Emeric Lake, and other waters the trout abound. Merced Camp is a good base from which to ascend Florence Mountain or Mount Clark and its lofty neighbors. Within a long day's walk are Yosemite Valley and the hikers' camps at Lake Tenaya (via Clouds Rest), at Tuolumne Meadows (via Tuolumne Pass or Vogelsang Pass), and in Lyell Cañon (via Vogelsang Pass or Tuolumne Pass). A short day westward is the Little Yosemite Camp. A seven-mile climb on the scenic Babcock and Emeric Lake Trail, or on the even more spectacular Vogelsang Pass Trail, would take us to

BOOTHE LAKE CAMP

Boothe Lake Camp is situated on a cove of a beautiful little heather-bordered alpine lake at the headwaters of Emeric Creek. Not only is it a well-located stopping-place on the trails between Merced Lake, Tuolumne Meadows, and Lyell Cañon, but it also makes accessible a great upland terrain hitherto reached only with great difficulty. Not far distant are Unicorn, Echo, and the other summits of the Cathedral group; in another direction are Vogelsang Peak and its unnamed neighbors; Fletcher Lake and Evelyn Lake are easily reached, and it is but a short walk to Ireland Lake, which exploring fishermen tell us contains some of the finest trout in the Sierra. From Boothe Lake Camp the Tuolumne Meadows Camp is about four hours' walk northward via the Rafferty Creek Trail. Eastward, the Mount Lyell Camp is four hours distant. To the southward Merced Lake Camp may be reached in three hours via the Babcock and Emeric Lake Trail, or in five hours via the Vogelsang Pass Trail.

At the head of the Lyell Cañon, where hundreds of Sierra Club members have bivouacked before ascending Mount Lyell, now stands Mount Lyell Camp. There has long been a demand for an easily



THE CONTINENTAL DIVIDE AT GUNNSIGHT PASS, GLACIER NATIONAL PARK

Photograph by Walter L. Huber





ALONG THE PACIFIC SIDE OF THE GARDEN WALL, GLACIER NATIONAL PARK
(Logan Pass in the right center)

Photograph by Walter L. Huber

accessible camp located thus in the heart of Yosemite's highest Sierra within striking distance of Mount Lyell, Mount McClure, Parker Peak, Mammoth Peak, Kuna Crest, and other less-known but equally difficult summits. But the camp is not only for the ambitious mountain-climber. One may spend a leisurely day on the trail that will take him to Donohue Pass, where he can peer over the divide toward the spectacular peaks of the Mount Ritter Group, or he may be well repaid for his entire trip by merely loitering through the flower-dotted meadows that carpet this great glacial trough as far as the Tuolumne Meadows. Within three hours' walk are the Tuolumne Meadows Hikers' Camp and the previously mentioned camp near Tuolumne Pass.

Of all the spots in the High Sierra, John Muir's favorite was the Tuolumne Meadows. So many are the attractive excursions that may be taken afoot from the camp near the junction of the Lyell Fork and Dana Fork that hikers will be tempted to prolong their stay here from days to weeks. Among the shorter walks are those to Lambert Dome, Dog Lake, Fairview Dome, Evelyn Lake, and Gaylor Lakes; a little longer are the trips to Young Lake, McCabe Lakes, Tioga Pass, Tioga Lake, Ellery Lake, Saddlebag Lake, and Old Tioga Mine; and then there are the ascents of Mount Dana, Mount Conness, Ragged Peak, the rugged summits of the Cathedral Group, and dozens of other unnamed vantage-points. Trails radiate in every direction. A few miles westward are the famous Waterwheel Falls, with Glen Aulin Camp conveniently located for hikers. A little to the south of west the Tioga Road leads to Tenaya Lake Camp, some eight miles distant. Southwest, a full day's walk by the Sunrise Trail, lies Little Yosemite Camp. Southward one may climb in four or five hours up the Rafferty Creek Trail to Boothe Lake Camp. The Mount Lyell Camp is but two hours' walk southeastward up the cañon.

From the highland plateau of Tuolumne Meadows one descends abruptly into the Grand Cañon of the Tuolumne, passing California Falls, Le Conte Falls, and many other spectacular but unnamed cascades. Suddenly one comes upon Glen Aulin, a tranquil little valley shut off from all the world by great sheer granite walls. Here, where the river pauses for a moment before resuming its tumultuous rush into its mile-deep cañon, is Glen Aulin Camp. Waterwheel Falls, the Tuolumne's unique expression of leaping power and spot-

less beauty, may be reached by a newly constructed trail that further descends the cañon. Within one day to the north of Glen Aulin are Cold Cañon, Alkali Cañon, Virginia Cañon, and Matterhorn Cañon. Four hours to the southward Tenaya Lake may be reached via the McGee Lake Trail; half a day eastward up the Cañon lies Tuolumne Meadows Camp.

On the shore of Lake Tenaya near the mouth of Murphy Creek stands the seventh of Yosemite's high mountain camps. The fine swimming and boating, the fishing, and the superb scenic surroundings make this a camp where one may stay with enjoyment until the roving spirit bids him go in search of "the other side of the mountain." A number of near-by peaks offer splendid views, and hidden in glacial cirques on their flanks are actually some of the mythical fishing lakes of the old-timers' stories. Trails lead in many directions from Tenaya; Yosemite is five hours away by the Mirror Lake Trail or a full day's walk via the Tioga Road and the Yosemite Falls Trail; Little Yosemite Camp can be reached in a leisurely day by climbing first to Clouds Rest via the Forsyth Pass Trail; Tuolumne Meadows Camp is about eight miles distant by the Tioga Road; and to the north, via the McGee Lake Trail, lies Glen Aulin Camp.*

The establishment of hikers' camps in the High Sierra is not a money-making venture. The splendid co-operation shown by the Yosemite National Park Company in running them at cost calls for the appreciation not only of the Park Service, but of all whose ideal is "to explore, enjoy, and render accessible the mountain regions of the Pacific Coast."

* The Yosemite Nature Guide Service will schedule regular trips over the trails outlined above. Hikers may learn to read the trail-side in this High Country Wonderland from a competent scientist. This service is provided without cost by the Government.

A TALK BY JOHN MUIR

AFTER A DINNER GIVEN TO HIM AND CERTAIN MEMBERS OF THE
AMERICAN ALPINE CLUB BY JUDGE HARRINGTON PUTNAM AT
THE MANHATTAN HOTEL, NEW YORK, JUNE 17, 1911*

FROM NOTES BY ALDEN SAMPSON
(The introductory remarks were not recorded)



THE Calaveras Grove of Big Trees has the tallest sequoia, which is 325 feet in height. This grove is almost the most northerly of them all. The oldest sequoia is thirty-five feet and eight inches in diameter, not counting the bark, which is two feet thick, a total of four feet more to be added to the diameter. This tree was twenty-seven feet in diameter in the year 1, A.D. The oldest tree is four thousand years old. A clean plank could be cut from this tree two hundred feet long and ten feet wide, which would not a little excite the admiration of a Wisconsin or New England farmer.

When growing on a hillside sequoias always brace themselves a little, so that they lean toward the hill. When cut down they always fall uphill. The *Abies magnifica* grows to a height of 240 feet; I measured one of that height.

When I came to America I was eleven years old. I had by that time acquired some slight knowledge of Latin, French, and English. I soon made the acquaintance of the taws† of leather. The teacher took particular pains, whether we learned anything else or not, to make us familiar with this source of stimulation—and the pains were not all on one side either. In the first few Latin and French lessons the new teacher blandly smiled at our comical blunders, but pedagogical weather of the severest kind quickly set in, when for every mistake, everything short of perfection, the taws were promptly applied. We had to get three lessons every day in Latin, three in French, and as many in English, besides spelling, history, arithmetic, and geography."‡ Between the age of ten and eleven I

* There were sixteen present at the dinner, viz., in the order of seating, Judge Putnam, John Muir, Professor Halleck, Alden Sampson, Mr. Vaux, B. F. Seaver, Mr. Freeborn, Mr. Delafield, H. G. Bryant, Arthur L. Rotch, Professor Ernest Brown, Mr. Bridgman, Mr. Adams, Mr. Curtis, Mr. Nichols, Professor Fay.

† A "taw" was a leather strap.

‡ *The Story of My Boyhood and Youth*, p. 26.

knew the New Testament by heart from the beginning of *Matthew* to the end of *Revelation*. I knew it right straight through, and lots of the *Old Testament* as well; all about the Hittites and the Jiggrites.*

My father read the Bible to us every day, prayed for us, and preached hell-fire early and late. Our home in Scotland was near Dunbar Castle. As a lad I used to climb its craggy ruins, and so learned to be a mountaineer.

Our home in Wisconsin was situated in the "oak openings" where there was a scattered growth of four or five trees to the acre, mainly burr oaks.

I went into the Yosemite forty-three years ago last April [1868]. I had just arrived in California from Florida and Cuba by the way of New York and Panama, and went directly to the Yosemite Valley.

In going into the Sierra we went by the Coulterville Road. In places the snow was still ten feet deep; so deep that the blazes on the trees were often covered up, and we had sometimes to guess as to our route. A young Englishman who had been on the ship with me from Panama was my companion.† The trip lasted a month and cost us three dollars each. I had a long time been determined to see the Sierra. I wanted this so badly that the first thing I knew I was there. If a man wants a thing, it comes to him. After this trip, which my book describes,‡ I went back to the Yosemite for five years. When I had been there two years, Emerson came in, with his son and Prof. Thayer. I saw a good deal of Emerson; he came to see me every day.

I made a thousand dollars by working in a saw-mill while I was in the Yosemite during these years. When I was in college, at the University of Wisconsin, I never spent more than a dollar a week for my board, and out of that sum I had also to buy chemicals and apparatus. Many a month I had only fifty cents a week left for my support, and lived largely on crackers. My vacations I spent in the wheat fields, cradling wheat.§

* "About three-fourths of the Old Testament," he says in *The Story of My Boyhood and Youth*.

† A Mr. Chilwell, who had been in the steerage with him on his sea voyage from Panama.

‡ *My First Summer in the Sierra*, then just published—1911.

§ "During the four years that I was in the University, I earned enough in the harvest fields during the summer vacations to carry me through the balance of the year, working very hard, often cradling four acres of wheat a day, and helping to put it in the shock. But, having to buy books and paying, I think, thirty-two dollars a year for instruction, and occasionally buying acids and retorts, glass tubing, bell-glasses, flasks, etc., I had to cut down expenses for board now and then to half a dollar a week."—*The Story of My Boyhood and Youth*, p. 220.



UPPER ST. MARY LAKE FROM GOING-TO-THE-SUN CHALET, GLACIER NATIONAL PARK
Photograph by Walter L. Huber





McDERMOTT LAKE, GLACIER NATIONAL PARK
Photograph by Walter L. Huber

Among the sequoias is shown the record of a big wind storm which occurred 300 years ago,—between three and four hundred years ago. Many trees were then blown down, and the fallen trunks lie there prostrate now in fairly good preservation. The time of this fall can be determined with reasonable accuracy.

The coast redwood is the tallest tree in the world. One of these on Eel River is nine feet in diameter and 340 feet long. Some are even longer than that. Whitney, the state geologist of California,* printed in a guide book the statement that one of these trees measured 480 feet in length. Baron Müller had heard some one say so, and Thayer put this statement in his book without verification. A tree in Rob Roy Gulch was "160 feet in circumference," and "the Hugh Miller tree was 97 feet in diameter, four feet from the ground." *The National Geographic Magazine* repeated this story. That is all fudge.

In the whole Sierra there isn't a sneeze, but I was quite unable to convince Emerson that this was so. Although I tried my best, I could not persuade him to sleep out of doors the night that we visited the Wawona grove of big trees. He and those with him had formed the house habit beyond all possibility of change. He feared some mysterious influence of the night air. My father had the same idea. To think of that being a Scotch habit! I long had the idea of writing a book to be called: "Keep your nose out of doors." I was seventeen hours on Mt. Shasta once, in a snow storm, in my shirt sleeves, and took no harm from it. There was something very queer about that storm; it was accompanied by awful thunder, ("the most tremendously loud and appalling ever heard").†

To me timber-line and bread-line were synonymous. On my tramps in the Sierra, I carried a bag of bread; this when descending I always rolled down hill ahead of me, so it soon became a bag of bread crumbs. This lasted me three weeks. I first dried it out thoroughly, and it would then, with care, keep for any length of time without getting mouldy.

To my father who was solicitous lest the devil should misguide my steps I once wrote, "Father don't trouble yourself about the devil so far as I am concerned. The devil never gets above timber-line."

In my camps at timber-line I would keep a fire going all night,

* Josiah D. Whitney, afterward professor at Harvard College.

† *Sleep Trails*, p. 72.

made from the pitchy roots of the *Albicaulis* pine. I would seek shelter under the lee of these dwarf pines, which grow so solidly matted and packed together, like the top of a spruce or hemlock hedge, that one could walk on their tops without sinking through. The wind always draws down hill at night on the mountains, so one could seek shelter with entire assurance as to which way it was going to blow. Having no blanket I could sleep only twenty minutes to a half hour at a time before I would be awakened by the cold. I would start up the fire and get a little warmed, and then try it again, and so wear the night out. When I was asleep one side of me roasted, while the other froze. In the morning I was naturally stiff and cold, but soon from the effect of tea and sunshine I felt "lifted up." It was physiological radium, Scotch radium. My impulse then was to run and shout.

You can't take cold if you keep your nose out of doors. In Alaska once I spent nine days on the ice. It was all a delight to me. It was a wonder how a creature with so slight sustenance could be so glad. I caught cold once after such a trip. To cure it I plunged into a pool of ice water and then into a bearskin bag. It was a complete cure. No microbe could stand that.

PLACE NAMES OF THE HIGH SIERRA

COMPILED BY FRANCIS P. FARQUHAR

PART II

IN the SIERRA CLUB BULLETIN for 1923 (Volume XI, Number 4) the first part of an alphabetical list of place names was presented. The sources of information were explained in the introductory remarks. Since then some additional information has been obtained making it possible to enlarge the list. It seems best, however, to leave these names for supplementary publication after the alphabet has been completed and to devote the space at present available to a continuation of the alphabet. The first instalment included the letters A to J; this instalment continues through the letter Q; and in the BULLETIN for 1925 the alphabet will be completed.

One correction of importance has been received and is so interesting that it is reproduced here in full as an example of the kind of historical material that may be drawn out by the publication of these names. Judge W. B. Wallace, of Visalia, writes:

"In reading the list of mountain names I find one which is unfortunately erroneous and ill-suited. It is Cloudy Creek or Cloudy Cañon. It is misleading, as the water of the creek is crystal clear. The proper and original name is Cloud Creek and Cloud Cañon. It so happens that I first named it.

"In the summer of 1880 I was at Mineral. Jo Palmer and William Course were two of my miner friends, as was John Crabtree. Palmer had been told by a semi-civilized Indian, whom we knew as Jim Buck, that he had found some rich specimens of silver ore in a mountain at the extreme head of the Kaweah River and near the head of a branch of Kings River. On the strength of this information Palmer, Crabtree, Course, and I went into that region on a prospecting expedition. Going to the Big Arroyo, we ascended it near the head, where there was yet some timber, and camped. The next day started afoot to go around the head of four streams that start at the foot of the same mountain. The Big Arroyo, Kaweah River, Cloud Creek, and what Wright in 1881 named Cone Creek, but which was later given the name Kern-Kaweah, a rather senseless hyphenated name. We passed out of the Big Arroyo on the east side of the mountain, keeping quite a distance above timberland. Then we crossed to a point not far from the head of Cloud Creek, where we separated—the other three sought the smoother way along the creek-bed, while I took to the crags.

"In going south to get into the Kaweah River I found an attractive-looking ledge of gray copper ore outcropping in the face of the mountain for nearly three hundred feet in height. I took some specimens of the ore, which were

very soft, and located a mining claim there for the four of us. I named it 'The Cloud Mine' because the clouds hung so low overhead. At the same time I named the creek Cloud Creek and put the name in my notebook. I often referred to my mine as being up in the clouds. If it had been down in the foothills the mine would have been very valuable. We held it two or three years and then abandoned it. The soft gray carbonate ore assayed 22 per cent copper, with some silver. After monumenting the mine, which was an herculean task, I went on south into the bed of the Kaweah as my companions had done and thence to the head of the Big Arroyo to camp.

"The claim I had recorded on my return to Visalia as the 'Cloud Claim.' "

Corrections, additions, comments, and criticisms will be most welcome and may be addressed to the compiler in care of the Sierra Club or to the editor of the BULLETIN. Information is particularly desired in regard to the following:

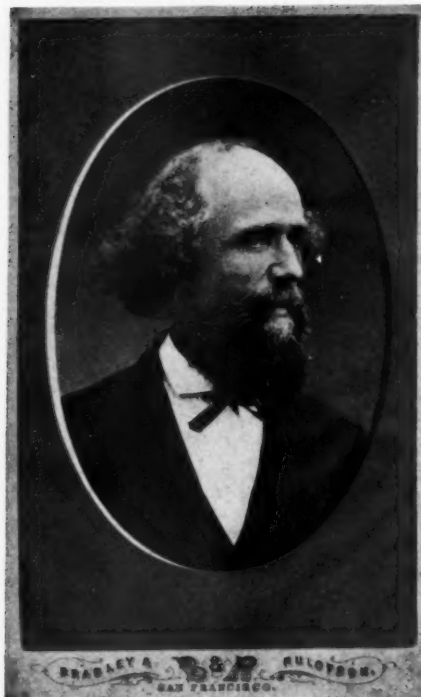
[Names in brackets refer to U.S.G.S. quadrangle]

Bago, Mount [<i>Mount Whitney</i>]	Pitman Creek [<i>Kaiser</i>]
Charlotte Lake [<i>Mount Whitney</i>]	Pleasant Valley [<i>Yosemite</i>]
Dade, Mount [<i>Mount Goddard</i>]	Poopenaut Valley [<i>Yosemite</i>]
Dingley Creek [<i>Mount Lyell</i>]	Ramshaw Meadows [<i>Olancha</i>]
Dog Lake [<i>Mount Lyell</i>]	Rancheria Mountain [<i>Yosemite</i>]
Electra Peak [<i>Mount Lyell</i>]	Register Creek [<i>Mount Lyell</i>]
Elizabeth Lake [<i>Mount Lyell</i>]	Return Creek [<i>Mount Lyell</i>]
Farewell Gap [<i>Kaweah</i>]	Roaring River [<i>Tehipite</i>]
Florence Peak [<i>Kaweah</i>]	Rush Creek [<i>Mount Lyell</i>]
Gallats Lake [<i>Mount Whitney</i>]	Scaffold Meadow [<i>Tehipite</i>]
Gillett Mountain [<i>Dardanelles</i>]	Scepter Pass [<i>Mount Goddard</i>]
Glen Aulin [<i>Mount Lyell</i>]	Seavey Pass [<i>Dardanelles</i>]
Grant Lake [<i>Mount Lyell</i>]	Shaver [<i>Kaiser</i>]
Harden Lake [<i>Yosemite</i>]	Shuteye Peak [<i>Kaiser</i>]
Harrington, Mount [<i>Tehipite</i>]	Simmons Peak [<i>Mount Lyell</i>]
Inconsolable Range [<i>Mount Goddard</i>]	Spanish Mountain [<i>Tehipite</i>]
Jack Main Cañon [<i>Dardanelles</i>]	Stubblefield Cañon [<i>Dardanelles</i>]
June Lake [<i>Mount Lyell</i>]	Sunrise Mountain [<i>Mount Lyell</i>]
Kerrick Cañon [<i>Dardanelles</i>]	Templeton Meadows [<i>Olancha</i>]
Lamarck, Mount [<i>Mount Goddard</i>]	Thompson Cañon [<i>Dardanelles</i>]
Langille Peak [<i>Mount Goddard</i>]	Thompson, Mount [<i>Mount Goddard</i>]
Lion Rock [<i>Tehipite</i>]	Tilden Lake [<i>Dardanelles</i>]
Little Pete Meadow [<i>Mount Goddard</i>]	Tiltill Valley [<i>Yosemite</i>]
McGee Lake [<i>Mount Lyell</i>]	Toowa Range [<i>Olancha</i>]
Moses Mountain [<i>Kaweah</i>]	Tunnabora Peak [<i>Mount Whitney</i>]
Music Peak [<i>Kaiser</i>]	Vernon, Lake [<i>Dardanelles</i>]
Parker Peak, Pass [<i>Mount Lyell</i>]	Wapama Falls [<i>Yosemite</i>]
Pate, or Pait, Valley [<i>Yosemite</i>]	White Wolf [<i>Yosemite</i>]
Peeler Lake [<i>Bridgeport</i>]	Wilmer Lake [<i>Dardanelles</i>]
Pettit Peak [<i>Mount Lyell</i>]	



JOHN MUIR (1838-1914)
From a portrait at the age of thirty-five





JOSEPH LE CONTE (1823-1901)

Photograph taken about 1875

PLACE NAMES OF THE HIGH SIERRA

(CONTINUED)

KAISER PASS, PEAK

[Kaiser]

"Kaiser or Keyser: both are used locally. The name is very old, and its rightful spelling unknown. I remember hearing the old miners speak of Kaiser Gulch (a placer district) way back in 1862, the year of the big flood; but I know nothing as to the name." (L. A. Winchell: *Manuscript*, 1896.)

KANAWYER

[Tehipite]

P. A. Kanawyer maintained a camp at Copper Creek in Kings River Cañon for many years.

KAWEAH PEAKS

[Mount Whitney, Tehipite]

The Kaweah Peaks are called, from east to west: Big Kaweah, or Mount Kaweah (13,816), Second Kaweah (13,728), Red Kaweah (13,754), Black Kaweah (13,752).

The first ascent of the Big Kaweah was made in September, 1881, by J. W. A. Wright, of Hanford, F. H. Wales, of Tulare, and W. B. Wallace, of Visalia. (Elliott: *Guide to the Grand and Sublime Scenery of the Sierra Nevada*, 1883, pp. 47-49, 59.) They named the peaks, from left to right: Mount Abert (for Colonel John J. Abert, one time Chief of Topographical Engineers, U. S. Army); Mount Henry (for Professor Joseph Henry, of Princeton); Mount Le Conte (for Professor Joseph Le Conte, of the University of California); and Mount Kaweah. The first three names were not given sufficient publicity and have lapsed from use.

First ascent of Red Kaweah, July, 1912, by Charles W. Michael. (Charles W. Michael.)

First ascent of Black Kaweah, August 11, 1920, by Duncan McDuffie, Onia Imus Brown, and James S. Hutchinson. (S.C.B., 1921, XI:2, pp. 131-134.)

KAWEAH RIVER

[Kaweah, Tehipite]

The Kaweah River has four principal forks: North, Middle, East, and South. The Marble Fork is a branch of the Middle Fork.

"Kaweah River is named after a Yokuts tribe called Kawia, or probably more exactly, Gá'wia. They lived on or near the river where it emerges from the foothills into the plains. The name has no known connection with the almost identically pronounced southern California town Cahuilla." (Kroeber: *California Place Names of Indian Origin*, 1916, p. 44.)

"The next stream we came to was the Pi-pi-yu-na, or Kah-weé-ya, and very commonly known as the Four Creeks. Immediately upon leaving the mountains, like the Kings River, it divides itself into several streams; but, unlike those of that river, they do not unite, but continue to diverge, forming a delta, whose base is over fifteen miles long." (Williamson: *Report of Explorations in California, Pacific Railroad Surveys*, 1853, v:1, p. 13.)

KEARSARGE PASS, PEAK (12,650), PINNACLES, LAKE

[Mount Whitney]

The High Sierra features derived the name from the Kearsarge Mine on the eastern side of the pass.

"Shortly before [1864], sympathizers with the South in the Civil War had named the Alabama hills, near Lone Pine, in evidence of their gratification at the destructive career of the Confederate privateer 'Alabama.' Having the end of that career by the Kearsarge fresh in mind, [Thomas W.] Hill and his partners [G. W. Cornell, A. Kittleson, Thomas May, and C. McCormack], staunch Unionists, evened it up by calling their claim after the Union battle-ship." (Chalfant: *The Story of Inyo*, 1922, pp. 195-197.)

A party of eleven prospectors, including John Bubbs and Thomas Keough, crossed Kearsarge Pass from Independence in July, 1864. (S.C.B., 1918, x:3, p. 340.)

KEELERS NEEDLE

[Mount Whitney]

Named for James Edward Keeler, [1857-1900]; graduate of Johns Hopkins University, 1881; director of the Alleghany Observatory, 1889-1898; director of the Lick Observatory, 1898-1900; accompanied S. P. Langley on the expedition to Mount Whitney in 1881. The name appears on an outline of the Mount Whitney range in Langley's *Solar Heat*, 1884, p. 37.

KEITH, MOUNT (13,990)

[Mount Whitney]

Named by Mrs. J. N. Le Conte for William Keith, artist. Keith was born in Aberdeenshire, Scotland, 1838; died in San Francisco, 1911. (S.C.B., 1911, viii:2, p. 130.)

First ascent, July 6, 1898, by Cornelius Beach Bradley, Joseph C. Shinn, Jennie E. Price, and Robert M. Price. (S.C.B., 1899, ii:5, p. 274.)

KERN RIVER

[Mount Whitney, Olancha]

Named by John C. Fremont for Edward M. Kern, topographer and artist of Fremont's third expedition. (Fremont: *Memoirs*, 1887, p. 455.) Kern was with the detachment under Talbot and Walker that crossed from Owens Valley by Walker Pass in December, 1845, and camped for three weeks on Kern River.

"From these circumstances the pass in which Walker and Kern were encamped was called Walker's Pass; and, as no name was known to Colonel Fremont for the stream which flowed from it, he named it Kern River. This stream was, and is now, known to the native Californians as the Po-sun-co-la, a name doubtless derived from the Indians." (Williamson: *Report of Explorations in California, Pacific Railroad Surveys*, 1853, v:1, p. 17.)

KERN-KAWEAH RIVER

[Mount Whitney]

"In the month of July, 1897, our party of four—Prof. W. R. Dudley (special botanist of the Stanford University), Messrs. Otis Wright and Harry Dudley (students at Stanford), and I [W. F. Dean]—camped at the junction of the three branches of the Kern, and here we crossed the East and Middle Forks and began our climb up the west branch of the Kern, or Kern-Kaweah, as we afterward named it." (*Mt. Whitney Club Journal*, 1902, No. 1, p. 13.—See, also, S.C.B., 1898, ii:3, p. 188.)

This branch of the Kern was named Cone Creek in 1881 by Captain J. W. A. Wright for an officer of the U. S. Army, and so appears on Wright's Map in Elliott's *Guide to the Grand and Sublime Scenery of the Sierra Nevada*, 1883. (W. B. Wallace.)

KING, MOUNT (12,999)

[Mount Whitney]

Named by the Brewer party of the Whitney Survey in 1864 for Clarence King, a member of the party. (Whitney Survey: *Geology*, 1865, p. 392.) Clarence King: born at Newport, R. I., January 6, 1842; Yale (Sheffield) Scientific School, 1862; crossed the plains with James Terry Gardner in 1863; served with Whitney and Brewer in California State Geological Survey, 1863-1866; in charge of Geological Survey of the Fortieth Parallel, 1867-1878; organized the United States Geological Survey and was its first chief, 1879-1881; subsequently mining geologist and traveler; intimate associate of John Hay and Henry Adams; died at Phoenix, Arizona, December 24, 1901. Published: *Mountaineering in the Sierra Nevada*, 1872, (first appeared in part in *Atlantic Monthly*, 1871); *The Helmet of Mambrino*, in *Century Magazine*, May, 1886; *The Age of the Earth*, in *American Journal of Science*, January, 1893; *Systematic Geology*, 1878; and others. (Clarence King *Memoirs—The Helmet of Mambrino*, published for the King Memorial Committee of The Century Association, New York, 1904.—S. F. Emmons: *The Life and Scientific Work of Clarence King*, in *Engineering and Mining Journal*, January 4, 1902.—U.S. G.S.: *Twenty-third Annual Report*, for 1902, pp. 198-206.)

First ascent by Bolton Coit Brown, 1896. (S.C.B., 1897, II:2, pp. 94-97.)

KINGS RIVER

[Tehipite, and others]

"We found, after having traveled five leagues, the *Rio de los Santos Reyes*, which had been discovered in the previous year, 1805. (P. Muñoz: *Diario de la expedición hecha por Don Gabriel Moraga á los Nuevos Descubrimientos del Tular*, Sept. 21 to Nov. 2, 1806, in Bancroft Collection, Arch. Sta. Barb., vol. IV, p. 27.)" (Richman: *California Under Spain and Mexico*, 1911, p. 465.—See, also, Chapman: *History of California*, 1921, pp. 419-420.)

Rio de los Santos Reyes signifies in Spanish "River of the Holy Kings," and refers to the Magi, or three kings, called in the Bible the "wise men from the east," who visited the infant Jesus (Matthew: 2:1-12). It is not unlikely that the name was given on the day of Epiphany as was the case in the naming of Point Reyes (Punta de los Reyes) on the California coast by Vizcaino in 1603.

"We crossed an open plain still in a southeasterly direction, reaching in about twenty miles the Tulare Lake River. This is the Lake Fork; one of the largest and handsomest streams in the valley, being about one hundred yards broad and having perhaps a larger body of fertile lands than any one of the others. It is called by the Mexicans the *Rio de los Reyes*. [December 22, 1845]" (Fremont: *Memoirs*, 1887, p. 448.)

There are three principal forks of Kings River: North, Middle, and South.

KOIP PEAK (13,000), CREST

[Mount Lyell]

"Koip Peak, between Mono and Tuolumne counties, is probably, like near-by Kuna Peak, named from a Mono Indian word. *Koipa* is 'mountain sheep' in the closely related Northern Paiute dialect." (Kroeber: *California Place Names of Indian Origin*, 1916, p. 45.)

Named by Willard D. Johnson, U.S.G.S., about 1883. (J. N. Le Conte.)

KUNA PEAK (12,951), CREST

[Mount Lyell]

"Kuna Peak, between Tuolumne and Mono counties, is probably named from the Shoshonean word *Kuna*, usually meaning 'fire,' but appearing in the Mono dialect of the vicinity with the signification of 'fire-wood.'" (Kroeber: *California Place Names of Indian Origin*, 1916, p. 45.)

Named by Willard D. Johnson, U.S.G.S., about 1883. (J. N. Le Conte.)

LADY FRANKLIN ROCK

[Yosemite]

"This name was given in honor of the devoted wife of the great arctic voyager, Sir John Franklin, who paid Yo Semite a visit in 1863. From this rock one of the best of all views is obtained of the Vernal Fall." (Hutchings: *In the Heart of the Sierras*, 1886, p. 441.)

"Lady Franklin—bless her loyal woman's heart—was carried in a litter up to this point and rested on the broad flat rock which bears her name." (H[elen] H[unt] [Jackson]: *Bits of Travel at Home*, 1878, p. 118.)

LAMBERT DOME (See LEMBERT DOME)**LANGLEY, MOUNT (14,042)**

[Mount Whitney]

Samuel Pierpont Langley (1834-1906); professor of astronomy and physics, Western University of Pennsylvania and director of Alleghany Observatory, 1867-1887; secretary of the Smithsonian Institution, 1887-1906; conducted expedition to Mount Whitney, 1881, for researches in solar heat; experimented in problem of mechanical flight.

This mountain is famous for being confused for several years with Mount Whitney. In 1871 Clarence King, accompanied by a Frenchman from Lone Pine, Paul Pinson, climbed from Lone Pine to the summit of what he supposed to be the peak that he and his companions in 1864 had named Mount Whitney. (King: *Mountaineering in the Sierra Nevada*, 1872, pp. 264-281.)

"On the 27th day of July, 1873, Mr. W. W. Belshaw, of Cerro Gordo, and myself [W. A. Goodyear], rode our mules to the highest crest of the peak southwest of Lone Pine, which for over three years now, has been known by the name of Mount Whitney, and which was ascended and measured as such by Mr. Clarence King, in the summer of 1871. . . . Certain it is, however, that the peak which for over three years has borne the name of Whitney, has done so only by mistake, and that a new name must be found for it; while the name of Whitney must now go back to the peak to which it was originally given in 1864, and which is, in reality, the highest and grandest of this culminating cluster of the Sierra Nevada." (Goodyear: *Situation and Altitude of Mount Whitney*, in *Proceedings of the California Academy of Sciences*, 1873-74, v: pp. 139-144.)

As the name "Sheep Mountain," by which this summit was commonly known, was not sufficiently distinctive, the name Langley was placed on it in 1905. (S.C.B., 1910, VII:3, p. 141.)

LE CONTE DIVIDE

[Mount Goddard]

LE CONTE FALLS

[Mount Lyell]

LE CONTE, MOUNT (13,960)

[Mount Whitney]

Named for Joseph Le Conte, professor of geology and natural history at the University of California, 1869-1901.

Born February 26, 1823, on the plantation "Woodmanston," Liberty County, Georgia; University of Georgia, A.B. 1841, A.M. 1845; College of Physicians and Surgeons (N. Y.), M.D. 1845; Harvard (Lawrence Scientific School), S.B. 1851; LL.D., University of Georgia, 1879, Princeton, 1896; at Harvard studied under Agassiz; professor of natural history at University of Georgia, 1853-1856; professor of chemistry and geology, South Carolina College, 1857-1869; went to the new University of California in 1869 with his brother John; member of the American Philosophical Society, National Academy of Sciences, and fellow of the American Academy of Arts and Sciences; lectured and published extensively.

"In the summer of the same year [1870], at the end of the first session of the University, eight of the students invited Professor Frank Soule, Jr., and me to join them in a camping trip to the Sierras, and we joyfully accepted. This trip was almost an era in my life. We were gone six weeks and visited the Yosemite, the high Sierra, Lake Mono and the volcanoes in the vicinity, and Lake Tahoe. . . . I never enjoyed anything else so much in my life—perfect health, the merry party of young men, the glorious scenery, and, above all, the magnificent opportunity for studying mountain origin and structure." *Autobiography of Joseph Le Conte*, 1903, p. 247.)

The account of these "Ramblings Through the High Sierra" was published privately in 1875 and reprinted in *SIERRA CLUB BULLETIN*, 1900, III:1, pp. 1-107.

Professor Le Conte visited the Sierra many times. In 1900 he went on a six weeks' camping trip in the Kings River region with his son (Joseph N. Le Conte), his daughter (Mrs. Emma Le Conte Furman), and Miss Helen Gompertz (later Mrs. Joseph N. Le Conte). (*Sunset Magazine*, October, 1900, v:6, pp. 275-286.)

In 1901 he returned to Yosemite for the eleventh time. There he died on the morning of July 6th after a few hours' illness. (S.C.B., 1902, IV:1, pp. 1-11.)

The Sierra Club erected the Le Conte Memorial Lodge in Yosemite Valley in 1903 and dedicated it in 1904. (S.C.B., 1904, v:1, pp. 66-69; S.C.B., 1905, v:3, pp. 176-180, 254.) It was removed from the original site to its present location in 1919. (S.C.B., 1920, XI:1, pp. 91-92.)

The Le Conte Divide separates the South Fork of San Joaquin from North Fork of Kings River.

"Cross this ledge well to the right and gradually approach the river, which can be followed to the head of what is in many respects the most majestic cascade in the whole cañon, the Le Conte Cascade, so named by us in honor of our esteemed Professor, Joseph Le Conte." (Robert M. Price: *Through the Tuolumne Cañon*. S.C.B., 1895, 1:6, p. 204.)

"A conical mass of rock about 150 feet high and 250 feet in diameter forms the apex of Le Conte. After careful investigation we found this utterly impossible to climb. So we placed the monument on the north side of the dome where it can be easily seen by anyone approaching the summit; and in a small can we put a photograph of the Professor, with the following memorandum:

"Today, the 14th day of August, 1895, we, undersigned, hereby name this mountain Le Conte, in honor of the eminent geologist, Professor Joseph Le Conte. . . . A. W. de la Cour Carroll, Stafford W. Austin'." (S.C.B., 1896, 1:8, pp. 325-326.)

LE CONTE CAÑON

[Mount Goddard]

Named for Joseph Nisbet Le Conte, professor of engineering mechanics, University of California; son of Professor Joseph Le Conte, born 1870; B.S., University of California 1891; M.M.E., Cornell, 1892; president of the Sierra Club, 1915-1917, and for many years a director.

Le Conte, James S. Hutchinson, and Duncan McDuffie brought pack-mules over Muir Pass and down Le Conte Cañon July 18, 1908. (S.C.B., 1909, VII:1, pp. 16-17.)

LEE VINING CREEK

[Mount Lyell]

"Leroy Vining and a few chosen companions, with one of Moore's scouts as guide, went over the Sierras to the place where the gold had been found [in 1852], and established themselves on what has since been known as Vining's Gulch or Creek." (Bunnell: *Discovery of the Yosemite*, 1911, p. 282.)

LEMBERT DOME

[Mount Lyell]

Erroneously spelled LAMBERT on many maps and references.

John Baptist Lambert took up a homestead quarter-section of land in Tuolumne Meadows in 1885. The property included the soda springs and the meadow land across the river. He had previously lived in and around Yosemite. He built a log cabin on his claim and lived there, raising angora goats until the winter of 1889-90 when he lost his goats in the storms. Thereafter he collected butterflies and botanical specimens, which he sold to museums. In 1895 he was issued a United States patent on his claim.

He continued to live on his soda-springs property during the summers, but spent the winters in a cabin near Cascade Creek below Yosemite Valley. Here, in the winter of 1896-97, his body was found, evidently murdered.

The Tuolumne Meadows property passed to his brother, Jacob Lambert, who sold it in 1898 to the McCauley brothers. In 1912 it was purchased by members of the Sierra Club and held in trust for the club.

The Dome, being the most prominent object in the neighborhood, came to be known by the name of the hermit settler. (William E. Colby.—See, also, S.C.B., 1913, IX:1, pp. 36-39.)

LEWIS CREEK

[Tehipite]

Frank Lewis, pioneer sheepman in Kings River Cañon. About 1872. (J. B. Agnew.)

LIPPINCOTT MOUNTAIN (12,263)

[Tehipite]

Joseph Barlow Lippincott, formerly of the U.S.G.S.

LITTLE CLAIRE LAKE

[Kaweah]

"After about three miles [up Soda Creek] we turned south abruptly up a difficult hill to a little mountain lake, one of the exquisite sort so frequently

met with, which rested in a hollow of the country rock just below an unnamed granite peak, which merely on account of its symmetry and position had for some time been holding our attention. Here we made a mid-day camp, naming the bit of water 'Little Claire Lake,' tacking the sign to a tamarack-pine tree on the northern shore." (Willis Linn Jepson in S.C.B., 1903, IV:3, p. 214.)

This was on a trip over the Hockett trail with Ralph Hopping in August, 1900. Named for Ralph Hopping's daughter, then about seven years old, now Mrs. Parker Talbot of Redding, California. (Guy Hopping.)

LONE INDIAN, LAKE OF THE

[Mount Goddard]

"The name was suggested to us by the very distinct profile of an Indian's face and feathery head-gear in the mountain south of the lake. If you will look in Volume IV, [No. 3], of the SIERRA CLUB BULLETIN [1903], Plate LXXI, opposite page 197, you will find a photo of the lake, showing the mountain in the background, and by looking at the photo sidewise you will see the face distinctly. I believe that the mountain which suggested the name is the one marked 11,469 feet in height, just south of the lake. I notice in the article that my brother speaks of the mountain as being west of the lake, but in this I think he is mistaken. In those days our maps were very crude." (Letter from J. S. Hutchinson, 1924.)

LONGLEYS PASS

[Mount Whitney]

"Upon reaching its farther end, we had conquered the first divide, and were overlooking Bubbs Creek and the Kings River country. We blazed the trail from the point where we left Roaring River until we got above timber-line. This pass was 13,075 feet in elevation, by the barometer. As the writer had been the first to reach its summit, the party concluded to call it Longley's Pass, as a means of identification in the future." (Howard Longley: *From Fresno to Mt. Whitney by Way of Roaring (or Cloudy) River*, in S.C.B., 1895, I:6, p. 190.)

The pass is just south of Mount Brewer and leads to Lake Reflection.

LOST ARROW

[Yosemite]

"Ummo. Rocks between the Yosemite Falls and Indian Cañon; means 'lost arrow'." (Whitney: *The Yosemite Book*, 1868, p. 17.)

"The rocks near which we were encamped, between 'Indian Cañon' and 'The Falls,' were now called by the Po-ho-no-chee scouts who were with us, 'Hammo,' or 'Ummo,' 'The Lost Arrow,' in commemoration of the event." (Bunnell: *Discovery of the Yosemite*, 1911, p. 174.—For the "event," see Bunnell, p. 167.)

For the imaginary legend, see Hutchings: *In the Heart of the Sierras*, 1886, pp. 370-374; and Bertha H. Smith: *Yosemite Legends*, 1904, pp. 19-30. See, also, Galen Clark: *Indians of the Yosemite*, 1904, pp. 76-78, 96-100.

LUKENS LAKE

[Yosemite]

T. P. Lukens, one-time mayor of Pasadena.

LYELL, MOUNT (13,090)

[Mount Lyell]

"Mount Lyell, from Sir Charles Lyell [1797-1875], whose admirable geological

works have been well known to students of this branch of science, in this country, for the past thirty years." (Whitney: *Yosemite Guide Book*, 1870, p. 100.)

"The culminating point of the Mount Lyell group was ascended [1863], by Messrs. Brewer and Hoffmann; but they were unable to reach the very summit, which was found to be a sharp pinnacle of granite rising up above the snow." (Whitney Survey: *Geology*, 1865, p. 431.)

"Members of the State Geological Survey Corps having considered it impossible to reach the summit of this lofty peak, the writer was astonished to learn from Mr. A. T. Tileston, of Boston, after his return to the Valley from a jaunt of health and pleasure in the High Sierra, that he had personally proven it to be possible by making the ascent. Incredible as it seemed at the time, three of us found Mr. Tileston's card upon it some ten days afterwards." (Hutchings: *In the Heart of the Sierras*, 1886, p. 488.)

"John Muir probably made the first ascent about 1872. In 1889 the only records on the summit were: Edward A. Parker, — McLean, July 2, 1875; I. C. Russell, G. K. Gilbert, Aug. 12, 1883; W. D. Johnson, John Miller, Aug. 23-24, 1883; Gustave Starke, Sept. 12, 1885; H. P. Dyer, A. C. Dixon, J. A. Marsh, V. K. Chestnut, July 23, 1889." (J. N. Le Conte, in S.C.B., 1922, XI:3, p. 247.)

MACLURE, MOUNT (13,000 approx.) [Mount Lyell]

"To the pioneer of American geology, William Maclure, one of the dominating peaks of the Sierra Nevada is very properly dedicated." (Whitney: *Yosemite Guide Book*, 1870, p. 101.)

William Maclure, born in Scotland, 1763; visited United States in 1779 and again in 1796; planned a geological survey of the U. S.; crossed and recrossed the Alleghany Mountains fifty times; in Indiana in 1825; in 1827 moved to Mexico, where he died in 1840.

The spelling of the name on maps and in texts early became corrupted to "McClure."

MACOMB RIDGE (9,951) [Dardanelles]

Lieutenant Montgomery Mcigs Macomb, Fourth Artillery, U. S. Army, in charge of a party of the Wheeler Survey in California 1878-1879. Climbed Dunderberg, Conness, Lyell, Cathedral, Hoffmann, Clark, and Merced peaks in 1878. (*Annual Report of the Chief of Engineers, War Department*, for 1879, Appendix F of Appendix oo.) Brigadier-general, 1910; retired 1916; died January 19, 1924.

MARION LAKE [Tehipite]

"Directly at its foot was a beautiful lake, fringed with tiny meadows on one side, and guarded on the other by fine cliffs of white granite, which could be traced far down beneath the clear waters till lost in their blue depths." (S.C.B., 1903, IV:4, p. 259.)

Named in 1902 by J. N. Le Conte for his wife, Helen Marion Gompertz Le Conte, who was with him on a pioneering trip up Cartridge Creek. (J. N. Le Conte.)



CLARENCE KING (1842-1901) IN A MOUNTAIN CAMP
From "Clarence King Memoirs," by the Century Association





SEAVEY PASS
Photograph by E. A. Abeel

MARIPOSA COUNTY, GROVE

[Yosemite]

Contrary to prevalent opinion, the name was not given on account of the mariposa lily, but on account of the great number of butterflies (*Mariposas*), found by Moraga's expedition of 1806. (Sanchez: *Spanish and Indian Place Names of California*, 1922, pp. 322-323; and Chapman: *History of California*, 1921, pp. 421-422.)

MARJORIE LAKE

[Mount Whitney]

Marjorie Mott, daughter of Mr. and Mrs. Ernest J. Mott, of San Francisco. (E. J. Mott.)

MARTHA LAKE

[Mount Goddard]

Named by George R. Davis, U.S.G.S., in 1907, for his mother. (G. R. Davis.)

MARVIN PASS

[Tehipite]

Named by S. L. N. Ellis for his son. (J. B. Agnew.)

MATHER PASS

[Bishop]

Stephen Tyng Mather, director of the National Park Service, U. S. Department of the Interior, since the establishment of the office in 1917; Assistant to the Secretary of the Interior, in charge of national parks, 1915-1917; born in San Francisco, 1867; B.Litt., University of California, 1887; LL.D., George Washington University, 1922, University of California, 1924.

Named by Mr. and Mrs. Chauncey J. Hamlin, of Buffalo, N. Y., and party, August 25, 1921; probably the first party to use this pass with pack-train; used by Escallier, sheepman, with burro in 1897. (S.C.B., 1922, XI:3, p. 270; S.C.B., 1923, XI:4, p. 423.)

MCCLURE LAKE

[Mount Lyell]

Nathaniel F. McClure, Lieutenant 5th Cavalry, U. S. Army, stationed in Yosemite National Park in 1894 and 1895. (N. F. McClure.)

"Lieutenant McClure, who was on duty in the park last year, prepared an excellent map of it, which has been of great service to detachments on duty in the park." (Captain Alexander Rodgers, Acting Superintendent of Yosemite National Park, in *Report for 1895*, p. 5.)

Born in Kentucky, 1865; commissioned second lieutenant on graduation from West Point, 1887; colonel in 1916; brigadier-general, National Army, 1917-1918.

(See S.C.B., 1895, I:5, pp. 168-186; S.C.B., 1896, I:8, pp. 330-335; S.C.B., 1921, XI:2, pp. 175-180.)

MCCLURE MEADOW

[Mount Goddard]

The largest of the meadows on Evolution Creek. Named for Wilbur F. McClure, California State Engineer, in recognition of his assistance in building the John Muir Trail. (S.C.B., 1916, X:1, p. 86.)

MERCED RIVER, GROVE, LAKE, PEAK (11,722), PASS

[Yosemite, Mount Lyell]

"The river was named by the Spaniards, in honor of the Virgin, *El Rio de Nuestra Señora de la Merced* (the river of our Lady of Mercy). This name

was given to the stream by an exploring party under Sergeant Gabriel Moraga in 1806, as an expression of their joy and gratitude at the sight of its sparkling waters, after an exhausting journey of forty miles through a waterless country." (Sanchez: *Spanish and Indian Place Names of California*, 1922, pp. 282-283.)

Merced Grove of big trees was discovered by surveyors for the Coulterville Road in 1871 or 1872 and named by the president of the Turnpike Company, John T. McLean. (Letter from J. T. McLean, 1899.)

Merced Lake was called by John Muir "Shadow Lake." (*Scribner's Monthly*, January 1879, p. 416.) "I first discovered this charming lake in the autumn of 1872, while on my way to the glaciers at the head of the river." (Muir: *The Mountains of California*, 1894, p. 115.)

Merced Peak is also called "Black Mountain" in Whitney's *Yosemite Guide Book*, 1870, p. 109. "The last name had, however, been previously given to the highest point of the mass of ridges and peaks at the southern extremity of the range, south of the divide between the San Joaquin and the Merced. All these points, except Gray Peak, have been climbed by the Geological Survey."

"The range to which it [Mount Clark] belongs is sometimes called the Obelisk Group; but, oftener, the Merced Group, because the branches of that river head around it." (Whitney: *The Yosemite Book*, 1868, p. 97.)

"Merced Peak (culminating point of Merced Group)." (Wheeler Survey: *Geographical Report*, 1889, p. 134.)

Merced Pass was found by Corporal Ottoway while scouting for Lieutenant Benson in 1895 and named by Benson. (H. C. Benson.)

MICHAELIS, MOUNT

[*Mount Whitney*]

"By looking from the summit of Whitney in the direction indicated, Mount Michaelis can be easily distinguished as a handsome dome and large terrace on each side, looking altogether not unlike the section of a huge earth-work and its apron." (Elliott: *Guide to the Grand and Sublime Scenery of the Sierra Nevada*, 1883, p. 51.)

Name given by Langley party of 1881 to the mountain just north of Milestone. Named for Captain O. E. Michaelis, U. S. Army, who was detailed to accompany Langley.

"Captain Michaelis gave us a vivid description of the battle-ground of the Little Big Horn. He was the first white man to reach the body of General Custer on that ill-fated field." (W. B. Wallace, in *Mt. Whitney Club Journal*, 1902, No. 1, p. 5.)

MILESTONE MOUNTAIN (13,643), BOWL [Mount Whitney]

The name is shown on Hoffmann's map of 1873.

"Mount Langley . . . is known by a minaret, or obelisk, that seems to stand on the north edge of its summit. It is known among mountain prospectors as *Milestone Mountain*." (Elliott: *Guide to the Grand and Sublime Scenery of the Sierra Nevada*, 1883, p. 51.) The name Langley, given in 1881, was never in general use for this mountain, but was subsequently placed on another point.

The first ascent may have been made by George R. Davis, U.S.G.S., but

this is doubtful. The first recorded ascent was on July 14, 1912, by William E. Colby, Robert M. Price, and Francis P. Farquhar. (S.C.B., 1913, IX:1, pp. 1-6.—See, also, S.C.B., 1922, XI:3, p. 313; and S.C.B., 1923, XI:4, p. 440.)

Milestone Bowl appears erroneously on U.S.G.S. maps as "Milestone Bow."

"We were soon upon a plateau, and passed from this to a bowl-shaped mountain. And since this plateau and bowl have once been parts of Milestone, Prof. Dudley named them Milestone Plateau and Milestone Bowl." (W. F. Dean, in *Mt. Whitney Club Journal*, 1902, No. 1, p. 16.)

MILLER LAKE

[*Mount Lyell*]

Named by Lieutenant N. F. McClure in 1894 for a soldier in his detachment. (S.C.B., 1895, I:5, p. 174.)

MINERAL KING

[*Kaweah*]

"The first mine located in the Mineral King region was discovered in 1872. By 1879 it was a large mining settlement, but the mines never proved productive. It was at first called Beulah, but when a mining district was organized there it was pronounced to be the king of mineral districts and given the name of Mineral King." (G. W. Stewart.)

MINARETS

[*Mount Lyell*]

"To the south of this [Mount Ritter] are some grand pinnacles of granite, very lofty and apparently inaccessible, to which we gave the name of 'the Minarets'." (Whitney: *The Yosemite Book*, 1868, p. 98.)

First ascent by Charles W. Michael, September 6, 1923. (S.C.B., 1924, XII:1, p. 28.)

MIRROR LAKE

[*Yosemite*]

"Wai-ack was the name for 'Mirror Lake,' as well as for the mountain it so perfectly reflected. The lake itself was not particularly attractive or remarkable, but in the early morning, before the breeze swept up the cañon, the reflections were so perfect, especially of what is now known as Mt. Watkins, that even our scouts called our attention to it by pointing and exclaiming: 'Look at Wai-ack,' interpreted to mean the 'Water Rock.' This circumstance suggested the name of 'Mirror Lake.' The name was opposed by some, upon the ground that all still water was a mirror. My reply established the name. It was that other conditions, such as light and shade, were required, as when looking into a well, the wall of the Half Dome perfecting the conditions, and that when shown another pool that was more deserving, we would transfer the name. Captain Boling approved the name, and it was so called by the battalion." (Bunnell: *Discovery of the Yosemite*, 1911, p. 208.)

MITCHELL PEAK (10,375)

[*Tehipite*]

Susman Mitchell, of Visalia. (G. W. Stewart.)

MITCHELL MEADOW

[*Kaweah*]

Hyman Mitchell, of White River. (J. B. Agnew.)

MONO LAKE, COUNTY, PASS

[*Mount Lyell*]

MONO CREEK, PASS

[*Mount Goddard*]

"Mono County and Lake are named after a wide-spread division of Shoshon-

ean Indians on both slopes of the Southern Sierra Nevada. In speech and presumably in origin they are closely allied to the Northern Paiute of Nevada and Oregon and the Bannock of Idaho. By their Yokuts neighbors they are called Monachi. The ending *-chi* occurs otherwise in Yokuts and Miwok as a suffix on names of tribes or divisions. . . . The stem therefore appears to be Mona. To the Spaniards, who knew the Miwok and Yokuts earlier than they knew the Monachi, this stem might easily suggest *mono*, 'monkey.' . . . It appears that Monachi, like most of the names of the Yokuts for their own or other tribes, no longer possesses a determinable meaning." (Kroeber: *California Place Names of Indian Origin*, 1916, p. 49.)

MORO ROCK (6,719)

[*Tehipite*]

"Many have thought that the monolith's name was given by early Spanish explorers. The resemblance to Morro Castle (Havana) and Morro Rock on the California coast lends color to this supposition; but the name apparently comes but indirectly from Castilian days. Mr. Swanson of Three Rivers in the sixties of the last century had a blue roan mustang—the color that the Mexicans call *moro*. This name was probably given because the Spaniards got these colored horses one time from the Moors or Moros. This *moro* pony of Swanson's often ranged up under the rock and they called it 'Moro's Rock.' The Spaniards called the Mohammedan Malays of the Philippines *Moros*. The word is probably a derivative of *moreno*, meaning brown, and was applied to the Moors and Malays because of their darkly pigmented skins." (Letter from Colonel John R. White, Superintendent of Sequoia National Park, 1923.)

MORRISON, MOUNT (12,245)

[*Mount Morrison*]

Robert Morrison, a merchant of Benton, Mono County, while a member of a posse pursuing escaped convicts, was killed by one of them, September 23, 1871, near Convict Lake. "A mighty peak that towers over the lake bears the name of Mount Morrison." (Chalfant: *The Story of Inyo*, 1922, pp. 215-216.)

MUIR, MOUNT (14,025)

[*Mount Whitney*]

MUIR GORGE

[*Yosemite*]

MUIR GROVE

[*Kaweah*]

MUIR PASS

[*Mount Goddard*]

"John Muir: born in Scotland, reared in the University of Wisconsin, by final choice a Californian, widely traveled observer of the world we dwell in, man of science and of letters, friend and protector of Nature, uniquely gifted to interpret unto other men her mind and ways." (Benjamin Ide Wheeler, President of the University of California, in conferring the degree of Doctor of Laws on John Muir, Berkeley, California, May 14, 1913.)

John Muir was president of the Sierra Club from its organization, in 1892, until his death, in 1914.

For biography see S.C.B., 1916, x:1, and *The Life and Letters of John Muir*, by William Frederick Badé; Houghton Mifflin Company: Boston and New York; now in press (1924).

Mount Muir was named by Professor Alexander G. McAdie. (J. N. Le Conte.) Presumably has been climbed, but no record available.

"We named this gorge Muir Gorge, after Mr. John Muir, the first man to go through the [Tuolumne] cañon." (R. M. Price in S.C.B., 1895, 1:6, 206.)

Muir Grove was named by R. B. Marshall, U.S.G.S., in 1909. (J. N. Le Conte.)

Muir Pass was named by William E. Colby. It is the only pass across the Goddard Divide and is traversed by the John Muir Trail. First crossed with pack-train by U.S.G.S. party under George R. Davis in 1907, although sheep were taken over it years before. (J. N. Le Conte.)

MULKEY MEADOWS

[Olancho]

Cyrus Mulkey, sheriff of Inyo County 1871-1874. (Chalfant: *The Story of Inyo*, 1922, pp. 213, 334.—S.C.B., 1893, 1:1, p. 4.)

MURDOCK LAKE

[Dardanelles]

Named by N. F. McClure in 1895 for William C. Murdock, of the Board of Fish Commissioners, State of California. Small lake in line between Rodgers and Benson Lakes; shown on McClure's map of March, 1896, and Benson's map of 1897; omitted from U.S.G.S. maps. (N. F. McClure.)

MURPHY CREEK

[Mount Lyell]

John L. Murphy took up a claim on the shore of Tenaya Lake and built a cabin there. (Hutchings: *In the Heart of the Sierras*, 1886, p. 481.)

NANCE PEAK (8,436)

[Dardanelles]

John T. Nance, Colonel (Retired), U. S. Army, professor of military science, University of California, for a number of years.

NEALL LAKE

[Yosemite]

Lieutenant J. M. Neall, 4th Cavalry, U. S. Army, stationed in Yosemite 1892-1897. (H. C. Benson.)

NEVADA FALLS

[Yosemite]

Discovered by a small squad from Major Savage's party in Yosemite in 1851. The Indian name was *Yo-wy-we*, signifying the twist or squirm of the falling water. Bunnell suggested the name *Nevada*. "The Nevada Fall was so called because it was the nearest to the Sierra Nevada, and because the name was sufficiently indicative of a wintry companion for our spring [Vernal]." "The white, foaming water, as it dashed down Yo-wy-we from the snowy mountains, represented to my mind a vast avalanche of snow." (Bunnell: *Discovery of the Yosemite*, 1911, p. 209.)

"'Nevada' and 'Vernal,' emblems eternal

Of winter and loveliest spring."

(Bunnell: *Discovery of the Yosemite*, 1911, p. xi.)

NORTH DOME (7,531)

[Yosemite]

Named by Major Savage's party in 1851. "The name for the 'North Dome' is *To-ko-ya*, its literal signification 'The Basket'." (Bunnell: *Discovery of the Yosemite*, 1911, p. 216.)

OTTOWAY PEAK (11,500)

[Mount Lyell]

Named in 1895 by Lieutenant McClure for a corporal in his detachment. (N. F. McClure.)

OUZEL CREEK, BASIN

[Mount Whitney]

Named in 1899 by David Starr Jordan, of Stanford University. (S.C.B., 1900, III:1, pp. 109-110.)

"Here John Muir studied the water-ouzel in its home, and wrote of it the best biography yet given of any bird." (Jordan: *The Alps of the Kings-Kern Divide*, 1907, pp. 18-19.)

OWENS LAKE, RIVER, VALLEY

[Olancho, Mount Whitney, and others]

Richard Owens joined Fremont's third expedition in August, 1845, with Kit Carson. "That Owens was a good man it is enough to say that he and Carson were friends. Cool, brave, and of good judgment; a good hunter and good shot; experienced in mountain life; he was an acquisition, and proved valuable throughout the campaign." (Fremont: *Memoirs*, 1887, p. 427.)

"To one of the lakes along their [Talbot, Walker, and Kern party] route on the east side of the range, I gave Owens' name." (Fremont: *Memoirs*, 1887, p. 455.) Owens himself, however, did not go near the lake on this trip.

PALISADES

[Mount Goddard, Bishop]

North Palisade (14,254); Middle Palisade (14,049); South Palisade (14,051). South Palisade was named Split Mountain by Bolton Coit Brown in 1895, and is generally so called. (S.C.B., 1896, I:8, p. 309.) This group also includes Agassiz Needle, Mount Winchell, and Mount Sill.

"At the head of the north [middle] fork, along the main crest of the Sierra, is a range of peaks . . . which we called 'the Palisades'." (Whitney Survey: *Geology*, 1865, pp. 393-394.)

The Wheeler Survey used the names N. W. Palisade and S. E. Palisade for the North and South Palisades, respectively, in 1878. (Wheeler Survey: *Tables of Geographic Positions*, 1883, p. 19.—S.C.B., 1922, XI:3, p. 251.)

Lil A. Winchell, in 1879, named the highest peak for Frank Dusy; and in 1895 Bolton Coit Brown named it for David Starr Jordan; but the name North Palisade, based on the Whitney and Wheeler surveys, has been retained. (S.C.B., 1904, V:1, p. 3; 1896, I:8, p. 296.)

First ascent of North Palisade, July 25, 1903, by Joseph N. Le Conte, James K. Moffitt, James S. Hutchinson. (S.C.B., 1904, V:1, pp. 1-19; see, also, S.C.B., 1921, XI:2, pp. 204-205.)

First ascent of Middle Palisade, August 26, 1921, by Francis P. Farquhar and Ansel F. Hall. (S.C.B., 1922, XI:3, pp. 264-270.)

First ascent of South Palisade (Split Mountain), July 23, 1902, by Helen M. Le Conte, Joseph N. Le Conte, and Curtis M. Lindley. (S.C.B., 1903, IV:4, p. 262; see, also, S.C.B., 1922, XI:3, p. 314.)

PALMER MOUNTAIN (10,085)

[Tehipite]

Joe Palmer, a pioneer miner and mountaineer of the Kaweah and Kings River region. The name was originally applied to what is now called Avalanche Peak, but was transferred by the U.S.G.S. (J. N. Le Conte, J. B. Agnew.)

PARSONS PEAK (12,120) [Mount Lyell]

Named by R. B. Marshall, U.S.G.S., for Edward Taylor Parsons, for many years a director of the Sierra Club and a member of its outing committee; born, 1861, near Rochester, N. Y.; died May 22, 1914. (S.C.B., 1915, ix:4, pp. 219-224.)

In the summer of 1915 the Sierra Club erected the Parsons Memorial Lodge at Tuolumne Soda Springs. (S.C.B., 1916, x:1, pp. 84-85.)

PAVILION DOME (11,355) [Mount Goddard]

Named by Theodore S. Solomons in 1895. (T. S. Solomons.)

PERKINS, MOUNT (12,557) [Mount Whitney]

Named by Robert D. Pike in 1906 for former U. S. Senator George C. Perkins, of California. (J. N. Le Conte.)

PETER, LAKE [Tehipite]

"The Judge [W. B. Wallace of Visalia] stated that he was in the upper part of the basin of the Kaweah with Joe Palmer in 1877, a year of extreme drouth. They were camped at Wet Meadow, between the Giant Forest and Mineral King. On one occasion when following a dim trail up the canyon above Wet Meadow it gave out, and Palmer named a little body of water they discovered, Lake Peter, because the trail petered out at that point." (George W. Stewart.)

PICKET GUARD PEAK (12,311) [Mount Whitney]

"There is a fine pyramidal peak at the eastern end of the third range, which was always in the background of the view as we entered and ascended the narrow cleft of the Kern-Kaweah. This was named the Picket Guard." (William R. Dudley, in S.C.B., 1898, ii:3, p. 189.)

PINCHOT, MOUNT (13,471) [Mount Whitney]

Named by J. N. Le Conte in 1902 for Gifford Pinchot, first chief of the U. S. Bureau of Forestry, 1898-1910, now (1924) governor of Pennsylvania. (J. N. Le Conte.)

Occupied as triangulation station in 1905 by members of the U.S.G.S. This was the first ascent. (J. N. Le Conte.—Gannett: *Results of Primary Triangulation and Primary Traverse, Fiscal Year 1905-6*, U.S.G.S. Bulletin No. 310, 1907, p. 162.)

PIUTE CREEK, PASS [Mount Goddard]**PIUTE MOUNTAIN (10,489)** [Dardanelles]

"A well-known, or rather two well-known Shoshonean divisions, too widespread and too loosely organized to be truly designable as tribes, but each possessing a considerable uniformity of speech and customs. The Southern Paiute, who appear to have been first called by this name, lived in southwestern Utah, northern-most Arizona, southern Nevada, and southeastern California, and may be said to include the Chemehuevi and Kawaiisu. Their language is similar to Ute. The Northern Paiute, who disdain this name, although it is universally applied to them by Americans in their habitat, and who have also

been called Paviotso in literature, speak a dialect virtually identical with Bannock. They live in eastern Oregon, northwestern Nevada, an eastern fringe of northern and central California, and apparently shade into the Mono. Thus the Indians of Owens River Valley, who appear to be substantially Monos, are commonly called Paiutes. The usual American pronunciation of Paiute is Paiyut, but the meaning of the word, which has been interpreted both as 'water Ute' and 'true Ute,' cannot be considered as positively determined. Most of the places in California called Piute or Pahute are in or near the range of the Southern Paiute or their close kindred; but a Piute mountain and creek in Tuolumne County are apparently named after the Mono-speaking Indians of Mono County, who affiliate with the 'false' or Northern Paiute." (Kroeber: *California Place Names of Indian Origin*, 1916, p. 55.)

The name was first used for the pass and afterwards applied to the Creek by J. N. Le Conte in 1904. (S.C.B., 1905, v:3, p. 255.)

POHONO TRAIL

[Yosemite]

"The whole basin drained, as well as the meadows adjacent, was known to us of the battalion, as the Pohono branch and meadows.

"The band who inhabited this region as a summer resort, called themselves Po-ho-no-chee, or Po-ho-na-chee, meaning the dwellers in Po-ho-no. . . . I found it impossible to obtain the literal signification of the word, but learned beyond a doubt that Po-ho-no-chee was in some way connected with the stream. I have recently learned that Po-ho-no means a daily puffing wind, and when applied to fall, stream, or meadow, means simply the fall, stream, or meadow of the puffing wind, and when applied to the tribe of Po-ho-no-chees, who occupied the meadows in summer, indicated that they dwelled on the meadows of that stream.

"Mr. Cunningham says: 'Po-ho-no, in the Indian language, means a belt or current of wind coming in puffs and moving in one direction.' . . .

"Mr. Hutchings' interpretation is entirely fanciful, as are most of his Indian translations." (Bunnell: *Discovery of the Yosemite*, 1911, pp. 212-213.—See BRIDALVEIL FALLS.)

POWELL, MOUNT (13,361)

[Mount Goddard]

Presumably for John Wesley Powell, 1834-1902; famous explorer of the Colorado River, being the first to navigate through the Grand Cañon (1869); geologist in charge of the U. S. Geographical and Geological Survey of the Rocky Mountain Region, 1876-1879; succeeded Clarence King as second director of the U. S. Geological Survey, 1881-1894; first director of the Bureau of Ethnology, Smithsonian Institution. (For biography, see, Frederick S. Dellenbaugh: *The Romance of the Colorado River*, 1902.)

QUINN HORSE CAMP

[Kaweah]

Harry Quinn, for many years a sheep-owner in the Kaweah region. (G. W. Stewart.)

Copyright, 1924, by Francis F. Farquhar



MOUNT SILL. (14,198 FT.) FROM THE EAST FACE OF TEMPLE CRAG.

Photograph by Henry G. Hayes





BENSON LAKE
Photograph by Erwin E. Richter

EXPLORATIONS IN THE GREAT TUOLUMNE CAÑON*

BY JOHN MUIR

THE rivers of the Sierra Nevada are very young. They are only children, leaping and chafing down channels in which as yet they scarcely feel at home. . . .

In September, 1871, I began a careful exploration of all the mountain basins whose waters pass through the Yosemite Valley, where I had remained winter and summer for two years. I did not go to them for a Saturday, or a Sunday, or a stingy week, but with unmeasured time, and independent of companions or scientific associations. As I climbed out of Yosemite to begin my glorious toil, I gloated over the numberless streams I would have to follow to their hidden sources in wild, untrodden cañons, over the unnumbered and nameless mountains I would have to climb and account for—over the glacial rivers whose history I would have to trace, in hieroglyphics of sculptured rocks, forests, lakes, and meadows.

This was my "method of study": I drifted about from rock to rock, from stream to stream, from grove to grove. Where night found me, there I camped. When I discovered a new plant, I sat down beside it for a minute or a day, to make its acquaintance and hear what it had to tell. When I came to moraines, or ice-scratches upon the rocks, I traced them back, learning what I could of the glacier that made them. I asked the boulders I met, whence they came and whither they are going. I followed to their fountains the traces of the various soils upon which forests and meadows are planted; and when I discovered a mountain or rock of marked form and structure, I climbed about it, comparing it with its neighbors, marking its relations to living or dead glaciers, streams of water, avalanches of snow, etc., in seeking to account for its existence and character. It is astonishing how high and far we can climb in mountains that we love. Weary at times, with only the birds and squirrels to compare notes with, I rested beneath the spicy pines among the needles and burs, or upon the plushy sod of a glacier meadow, touching my cheek to its enameling gentians and daisies, in order to absorb their magnetism

* Excerpts from an article in the *Overland Monthly*, August, 1873, vol. xi, p. 139.

or mountainism. No evil consequence from "waste of time," concerning which good people who accomplish nothing make such a sermonizing, has, thus far, befallen me.

... I began to guess that I was near the rim of the Great Tuolumne Cañon. I looked back at the wild headlands, and down at the ten lakes, and northward among the gaps, veering for some minutes like a confused compass-needle. When I settled to a steady course, it was to follow a ridge-top that extends from near the edge of the lake-bowl* in a direction a little east of north, and to find it terminating suddenly in a sheer front over 4000 feet in depth.†

This stupendous precipice forms a portion of the south wall of the Great Tuolumne Cañon, about half-way between the head and foot. Until I had reached this brink, I could obtain only narrow strips and wedges of landscape through gaps in the trees; but now the view was bounded only by the sky. Never had I beheld a nobler atlas of mountains. A thousand pictures composed that one mountain countenance, glowing with the Holy Spirit of Light! I crept along on the rugged edge of the wall until I found a place where I could sit down to absorb the glorious landscape in safety. The Tuolumne River shimmered and spangled below, showing two or three miles of its length, curving past sheer precipices and meandering through groves and small oval meadows. Its voice I distinctly heard, giving no tidings of heavy falls; but cascade tones, and those of foaming rapids, were in it, fused into harmony as smooth as the wind-music of the pines.

The opposite wall of the cañon, mainly made up of the ends of ridges shorn off abruptly by the great Tuolumne glacier that once flowed past them, presents a series of elaborately sculptured precipices, like those of Yosemite Valley. Yet, sublime as is the scenery of this magnificent cañon, it offers no violent contrasts to the rest of the landscape; for the mountains beyond rise gradually higher in corresponding grandeur, and tributary cañons come in from the ice fountains of the summits, that are every way worthy of the trunk cañon. Many a spiry peak rises in sharp relief against the sky; in front are domes innumerable, and broad, whale-backed ridges, darkly fringed about their bases with pines, through openings in which I could here and there discern the green of meadows and the flashes of bright eye lakes. There was no stretching away of any part of this

* Ten Lake Basin.

† Probably Grand Mountain.

divine landscape into dimness, nor possible division of it into back, and middle, and foreground. All its mountains appeared equally near, like the features of one face, on which the sun was gazing kindly, ripening and mellowing it like autumn fruit.

The forces that shaped the mountains—grinding out cañons and lake basins, sharpening peaks and crests, digging out domes from the inclosing rocks—carving their plain flanks into their present glorious forms, may be seen at their work at many points in the high Sierra. From where I was seated, sphinx-like, on the brink of the mighty wall, I had extensive views of the channels of five immense tributary glaciers that came in from the summits toward the northeast. Everyone of these five ice rivers had been sufficiently powerful to thrust their heads down into the very bottom of the main Tuolumne glacier. I could also trace portions of the courses of smaller tributaries, whose cañons terminated a thousand feet above the bottom of the trunk cañon. So fully are the lives of these vanished glaciers recorded upon the clean, unblurred pages of the mountains, that it is difficult to assure ourselves that we do not actually see them, and feel their icy breath. As I gazed, notwithstanding the kindly sunshine, the waving of grass, and the humming of flies, the stupendous cañon at my feet filled again with creeping ice, winding in sublime curves around massive mountain brows; its white surface sprinkled with many a gray boulder, and traversed with many a yawning *crevasse*. The wide basins of summits were heaped with fountain snow, glowing white in the thin sunshine, or blue in the shadows cast from black, spiry peaks.

The last days of this glacial winter are not yet past, so young is our world. I used to envy the father of our race, dwelling as he did in contact with the new-made fields and plants of Eden; but I do so no more, because I have discovered that I also live in creation's dawn; the morning stars still sing together, and the world, not yet half-made, becomes more beautiful every day.

By the time the glaciers were melted from my mind, the sun was nearing the horizon. Looking once more at the Tuolumne glistening far beneath, I was seized with an invincible determination to descend the cañon wall to the bottom. Unable to discover any way that I cared to try, from where I stood, I ran back along the ridge by which I approached the valley, then westward about a mile, and clambered out upon another point that stood boldly forward into the cañon.

From here I had a commanding view of a small side-cañon on my left, running down at a steep angle; which I judged, from the character of the opposite wall, might possibly be practicable all the way. Then I hastened back among the latest sun-shadows to my camp in the spruce trees, resolved to make an attempt to penetrate the heart of the Great Cañon next day. I awoke early, breakfasted, and waited for the dawn. The thin air was frosty, but, knowing that I would be warm in climbing, I tightened my belt, and set out in my shirt-sleeves, limb-loose as a pugilist. By the time I reached the mouth of the narrow cañon-way I had chosen, the sun had touched all the peaks with beamless light. I was exhilarated by the pure, divine wildness that imbued mountain and sky, and I could not help shouting as I dashed down the topmost curves of the cañon, there covered with a dense plush of *carex*, easy and pleasant to tread.

After accomplishing a descent of four or five hundred feet, I came to a small mirror-lake set here on the slanting face of the cañon upon a kind of shelf. This side-cañon was formed by a small glacier, tributary to the main Tuolumne glacier, which, in its descent, met here with a very hard seamless bar of granite, that extended across its course, compelling it to rise, while the softer granite in front of it was eroded and carried away, thus forming a basin for the waters of the cañon stream. The bar or dam is beautifully molded and polished, giving evidence of tremendous pressure. Below the lake, both the sides and bottom of the cañon became rougher and I was compelled to scramble down and around a large number of small precipices, fifty or a hundred feet high, that crossed the cañon, one above another, like gigantic stairs.

Below the foot of the stairs are extensive willow tangles, growing upon rough slopes of sharp-angled rocks, through which the stream mumbles and gropes its way, most of the time out of sight. These tangles are too dense to walk *among*, even if they grew upon a smooth bottom, and too tall and flexible to walk *upon*. Crinkled and loosely felted as they are by the pressure of deep snow for half the year, they form more impenetrable jungles than I ever encountered in the swamps of Florida. In descending, one may possibly tumble and crush over them in some way, but to ascend them, with their longer branches presented against you like bayonets, is very nearly impossible. In the midst of these tangles, and along their margins, small garden-like meadows occur where the stream has been able to

make a level deposit of soil. They are planted with luxuriant *carices*, whose long, arching leaves wholly cover the ground. Out of these rise splendid larkspurs six to eight feet high, columbines, lilies, and a few polygonums and erigerons. In these moist garden-patches, so thoroughly hidden, the bears like to wallow like hogs. I found many places that morning where the bent and squeezed sedges showed that I had disturbed them, and knew I was likely at any moment to come upon a cross mother with her cubs. Below the region of bear-gardens and willow tangles, the cañon becomes narrow and smooth, the smoothness being due to the action of snow avalanches that sweep down from the mountains above and pour through this steep and narrow portion like torrents of water. I had now accomplished a descent of nearly 2,500 feet from the top, and there remained about 2,000 feet to be accomplished before I reached the river. As I descended this smooth portion, I found that its bottom became more and more steeply inclined, and I halted to scan it closely, hoping to discover some way of avoiding it altogether, by passing around on either of the sides. But this I quickly decided to be impossible, the sides being apparently as bare and seamless as the bottom. I then began to creep down the smooth incline, depending mostly upon my hands, wetting them with my tongue and striking them flatly upon the rock to make them stick by atmospheric pressure. In this way I very nearly reached a point where a seam comes down to the bottom in an easy slope, which would enable me to escape to a portion of the main wall that I knew must be climbable from the number of live-oak bushes growing upon it. But after cautiously measuring the steepness—scrutinizing it again and again, and trying my wet hands upon it—both mind and limbs declared it unsafe, for the least slip would insure a tumble of hundreds of feet. I was, therefore, compelled to retrace my devious slides and leaps up the cañon, making a vertical rise of about 500 feet, in order that I might reach a point where I could climb out to the main cañon-wall, my only hope of reaching the bottom that day being by picking my way down its face. I knew from my observations of the previous day that this portion of the cañon was crossed by well-developed planes of cleavage, that prevented the formation of smooth vertical precipices of more than a few hundred feet in height, and the same in width. These may usually be passed without much difficulty. After two or three hours more of hard scrambling, I at length stood among cool shadows on the river-

bank, in the heart of the great unexplored cañon, having made a descent of about 4,500 feet, the bottom of this portion of the cañon above the level of the sea being quite 4,600 feet. The cañon is here fully 200 yards wide (about twice the size of the Merced at Yosemite), and timbered richly with libocedrus and pine. A beautiful reach stretches away from where I sat resting, its border-trees leaning toward each other, making a long arched lane, down which the joyous waters sung in foaming rapids. Stepping out of the river grove to a small sandy flat, I obtained a general view of the cañon-walls, rising to a height of from 4,000 to 5,000 feet, composed of rocks of every form of which Yosemite are made. About a mile up the cañon, on the south side, there is a most imposing rock, nearly related in form to the Yosemite Half Dome. The side-cañon by which I descended looked like an insignificant notch or groove in the main wall, though not less than 700 or 800 feet deep in most places. It is one of the many small glacier-cañons that are always found upon the south sides of trunk cañons when they have a direction approaching east and west.

The continuity of the north walls of such trunk cañons is also broken by side-cañons, but those of the north side are usually much larger, and have a more steady and determined direction, being related to cañons that reach back to high glacier-fountains; while many of those of the south side may be strictly local. The history of their formation is easily read: they were eroded by the action of small, lingering glaciers that dwelt in the shade of the walls, long years after the exposed sun-beaten north walls were dry and bare. These little south-side cañons are apt to be cut off high above the bottom of the trunk cañon, because the glaciers that made them were swept round and carried away by the main trunk glacier, at heights determined by the respective forces of their currents. This should always be taken into consideration when we are weighing the probabilities of being able to reach the bottom of a trunk cañon by these tributaries.

Immediately opposite the point I descended are "royal arches," like those of Yosemite, formed by the breaking-up and the removal of a portion of a number of the concentric layers of a dome. All of the so-called "royal arches" of this region are produced in the same way.

About a mile farther down the cañon, I came to the mouth of a

tributary* that enters the trunk cañon on the north. Its glacier must have been of immense size, for it eroded its channel down to a level with the bottom of the main cañon. The rocks of both this tributary and of the main cañon present traces of all kinds of ice-action—moraines, polished and striated surfaces, and rocks of special forms. Just at the point where this large tributary enters the trunk cañon, there is a corresponding increase in size and change in direction of the latter. Indeed, after making a few corrections that are obviously required, for planes of cleavage, differences of hardness, etc., in the rocks concerned, the direction, size, and form of any main cañon below a tributary are always resultants of the forces of the glaciers that once occupied them, and this signifies that *glaciers make their own channels*. In front of this great tributary the cañon is about half a mile wide, and nobly gardened with groves and meadows.† The level and luxuriant groves almost always found at the mouths of large tributaries are very distinct in appearance and history from the strips and patches of forest that adorn the walls of cañons. The soil upon which the former grow is reformed moraine matter, collected, mixed, and spread out in lake-basins by streams. The trees are closely grouped into villages, social and trim; while those of the walls are roughish, and scattered like the settlements of the country. Some of these lake-basin groves are breezy from the way the winds are compelled to tumble and flow, but most are calm at the bottom of pits of air.

I pushed on down the cañon a couple of miles farther, passing over leafy level floors, buried in shady greenwood, and over hot sandy flats covered with the common *pteris*, the sturdiest of ferns, that bears with patience the hot sun of Florida and the heavy snows of the high Sierra. Along the river-bank there are abundance of azaleas and brier-roses growing in thickets. In open spots, there is a profusion of golden *compositæ*. Tall grasses brushed my shoulders, and yet taller lilies and columbines rung their bells above my head. Nor was there any lack of familiar birds and flies, bees and butterflies. Myriads of sunny wings stirred all the air into music. The stellar-jay, garrulous and important, flitted from pine to pine; squirrels were gathering nuts; woodpeckers hammered the dead limbs; water-ouzels sung divinely on wet boulders among the rapids; and the robin-redbreast of the orchards was everywhere. Here was no

* Probably Plute Creek.

† Pate Valley.

field, nor camp, nor ruinous cabin, nor hacked trees, nor down-trodden flowers, to disenchant the Godful solitude. Neither did I discover here any trace or hint of lawless forces. Among these mighty cliffs and domes there is no word of chaos, or of desolation; every rock is as elaborately and thoughtfully carved and finished as a crystal or shell.

I followed the river three miles. In this distance it makes a vertical descent of about 300 feet, which it accomplishes by rapids. I would fain have lingered here for months, could I have lived with the bears on cherries and berries, and found bedding and blanket-ing like theirs. I thought of trying their board and lodging for a few days; but at length, as I was in my shirt-sleeves and without food, I began my retreat. Let those who become breathless in ascending a few stairs think of climbing these Yosemite attics to a bed 5,000 feet above the basement. I pushed up the first 3,000 feet almost without stopping to take breath, making only momentary halts to look at striated surfaces, or to watch the varying appearances of peaks and domes as they presented themselves at different points.

As I neared the summit I became very tired, and the last thousand feet seemed long indeed, although I began to rest frequently, turning to see the setting sun feeding the happy rosy mountains. I reached the top of the wall at sunset; then I had only to skim heedlessly along a smooth horizontal mile to camp. I made a fire and cooked my supper, which, with me, means steeping a tincupful of tea, and eating a craggy boulder of bread. How few experience profound mountain weariness and mountain hunger!

No healthy man who delivers himself into the hands of Nature can possibly doubt the doubleness of his life. Soul and body receive separate nourishment and separate exercise, and speedily reach a stage of development wherein each is easily known apart from the other. Living artificially in towns, we are sickly, and never come to know ourselves. Our torpid souls are hopelessly entangled with our torpid bodies, and not only is there a confused mingling of our own souls with our own bodies, but we hardly possess a separate existence from our neighbors.

The life of a mountaineer is favorable to the development of soul-life as well as limb-life, each receiving abundance of exercise and abundance of food. We little suspect the great capacity that our flesh has for knowledge. Oftentimes in climbing cañon-walls I have come

to polished slopes near the heads of precipices that seemed to be too steep to be ventured upon. After scrutinizing them and carefully noting every dint and scratch that might give hope for a foothold, I have decided that they were unsafe. Yet my limbs, possessing a separate sense, would be of a different opinion, after they also had examined the descent, and confidently have set out to cross the condemned slopes against the remonstrances of my other will. My legs sometimes transport me to camp, in the darkness, over cliffs and through bogs and forests that are inaccessible to city legs during the day, even when piloted by the mind which owns them. In like manner the soul sets forth at times upon rambles of its own. Brooding over some vast mountain landscape, or among the spiritual countenances of mountain flowers, our bodies disappear, our mortal coils come off without any shuffling, and we blend into the rest of Nature, utterly blind to the boundaries that measure human quantities into separate individuals. But it is after both the body and soul of a mountaineer have worked hard, and enjoyed much, that they are most palpably separate. Our weary limbs, lying restingly among the pine-needles, make no attempt to follow after or sympathize with the nimble spirit, that, apparently glad of the opportunity, runs off alone down the steep gorges, along the beetling cliffs, or away among the peaks and glaciers of the farthest landscape, or into realms that eye hath not seen, nor ear heard; and when at length we are ready to return home to our other self, we scarcely for a moment know in what direction to seek for it. I have often been unable to make my muscles move at such times. I have ordered my body to rise and go to bed when it seemed to me as if the nerves concerned were cut, and that my soul-telegram had not reached the muscles at all.

Few persons have anything like an adequate conception of the abundance, strength, and tender loveliness of the plants that inhabit these so-called frightful gorges. . . .

This little cañon is a botanical garden, with dwarf arctic-willows not two inches high at one end, bush *compositæ* and wandy half-tropical grasses at the other; the two ends only half a day apart, yet among its miniature bogs, prairies, and heathy moorlands, the botanist may find representatives of as many climates as he would in traveling from Greenland to Florida.

The next morning after my raid in the Tuolumne country, I passed back over the border to Merced, glad that I had seen so much,

and glad that so much was so little of the whole. The grand rocks, I said, of this Tuolumne Yosemite are books never yet opened; and, after studying the mountains of the Merced Basin, I shall go to them as to a library, where all kinds of rock-structure and rock-formation will be explained, and where I shall yet discover a thousand water-falls.

THE MOUNTAINEER'S EVENING

PERHAPS there is no element in the varied life of an explorer so full of contemplative pleasure as the frequent and rapid passage he makes between city life and home; by that I mean his true home, where the flames of his bivouac fire light up trunks of sheltering pine and make an island of light in the silent darkness of the primeval forest. The crushing Juggernaut-car of modern life and the smothering struggle of civilization are so far off that the wail of suffering comes not, nor the din and dust of it all. . . . Such is the mountaineer's evening spent contemplatively before his fire; the profound sense of Nature's tranquillity filling his mind with its repose till the flames give way to embers, and guardian pines spread dusky arms over his sleep.

CLARENCE KING

"MOUNTAINEERING IN THE SIERRA NEVADA"

SIERRA CLUB

Founded 1892

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THE PURPOSES OF THE CLUB ARE:

To explore, enjoy, and render accessible the mountain regions of the Pacific Coast; to publish authentic information concerning them; to enlist the support and co-operation of the people and the Government in preserving the forests and other natural features of the Sierra Nevada.



JOHN MUIR, President 1892 to 1914

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EDITORIALS

THE PROPOSED ENLARGEMENT OF SEQUOIA NATIONAL PARK

The "Council on National Parks, Forests, and Wild Life," composed of the leaders in thought on this subject, in its pronouncement of policy which should govern in the establishment of these areas states that:

"the purpose in creating parks is to preserve the scenery, the natural and historic objects, and the plants and wild life. The objects are the enjoyment of the people, and the aiding of education and scientific study by keeping such areas unimpaired. Thereby certain portions of nature's handiwork will be kept for recreation, for science, and for education, both for this and for future generations. . . . National parks should contain features *distinctly national in interest*, and should preferably be of considerable magnitude, the size ordinarily to be governed by administrative considerations. . . . Lands possessing the foregoing qualifications, and the use of which for economic purposes is not of sufficient importance to outweigh the benefits of their preservation, should be made national parks wherever possible."

If we apply these tests to the area proposed to be added to the existing Sequoia National Park we cannot escape the conclusion that this enlarged park should be created. This magnificent mountain region extends to the crest of the High Sierra on the east of the present park, and includes the High Sierra region embracing the headwaters of the Middle and South Forks of the Kings River on the north and the headwaters of the Kern River on the south. The area contains some of the most stupendously impressive scenery to be found on the face of this globe—great river cañons from three thousand to five thousand feet in depth, with wonderful rock sculptures and towering cliff-walls—some of the highest mountains in this country outside of Alaska—numberless exquisite lakes and waterfalls. It is an ideal mountain parkland and wilderness, national in proportion and magnificence and majestic in grandeur. It includes six great Yosemite-like valleys—Tehipite Valley, Simpson Meadows, and Grouse Valley, on the Middle Fork of the Kings River; Kings River Cañon and Paradise Valley, on the South Fork; and the Kern River Yosemite. These Yosemite-like valleys each have in lesser degree only, broad parklike floors, vertical cliffs, domes (Tehipite Dome for its type of dome structure is without a peer in the world), and waterfalls which characterize their most famous prototype. The Palisades and other peaks of the main crest rise to fourteen thousand feet and culminate in Mount Whitney (14,501 feet). Magnificent forests clothe the slopes and relieve the severity of the rugged landscape, while wild flowers in unbelievable profusion and variety add a perfecting touch of color.

The value of this area rests predominantly in its magnificent scenery and its fauna and flora, and should be preserved for future generations for public use, resort, and recreation. No considerable commercial forests are contained in this area, though there are wonderful non-commercial forests. The finest

forest of foxtail pine in existence exists on the Chagoopa Plateau. The grazing is comparatively limited, and will not even suffice for the pack- and saddle-animals which will necessarily enter this region in increasing numbers. The only possible commercial use of any importance can be had only by damming up and destroying these wonderful Yosemite-like valleys. Fortunately, because of the comparatively steep gradient of their floors, they are not well suited to this purpose. This is evidenced by the fact that none of the great power companies have made any serious attempt to acquire rights in any of these cañons heretofore. The cost of transporting materials for building the dams makes these projects at the present time economically impossible. Immense reservoir sites on the lower reaches of the Kings River, conspicuously at Pine Flat, and outside the park area in question, provide for the storage of water to supply the needs of the irrigationists of the Kings River Delta. Certain of these irrigationists are now attempting to prevent the establishment of this national park which we have had under consideration for many years, and their only basis for opposition is that they desire at some remote time in the future to use these magnificent Yosemite Valley floors for reservoir sites, in order to develop power. This power would be in addition to the power that they will normally develop at their Pine Flat reservoir site, which latter will be sufficient for their own uses. However, they wish to sell this power and profit at the expense and to the loss of the entire nation, in order to keep down their irrigation costs. We are all human, and doubtless most of us would welcome having our personal expenses paid out of the public treasury were that possible. The irrigationists' need for this additional power is not great enough to justify such a national sacrifice.

John Muir, our outstanding mountain prophet, who has done more than any one else to attract the attention of the world to the glories of the Sierra, described this region in the *Century Magazine* for November, 1891, and concluded as follows:

"But all of this wonderful Kings River region, . . . should be comprehended in one grand national park. This region contains no mines of consequence, it is too high and too rocky for agriculture, and even the lumber industry need suffer no unreasonable restriction. Let our law-givers then make haste before it is too late to set apart this surpassingly glorious region for the recreation and well-being of humanity, and all the world will rise up and call them blessed."

When this bill comes up before the next session of Congress, every nature-lover in America should rally to its support.

W. E. C.

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PURPOSES OF
THE FOUNDERS

"To explore, enjoy, and render accessible the mountain regions of the Pacific Coast." The founders of the club still speak to us through these words of our charter. Hardy mountaineers accustomed to assail the mapless, trailless wilderness, they founded a club to carry on their intrepid climbs, to rejoice in the Sierra they had rejoiced in, and constantly to aid others in seeking and exploring those

shining peaks and solemn cañons which they themselves had explored, not without danger and hardship. No mere suburban excursions or metropolitan gatherings created the fellowship they knew, or inspired the ideals which they sought to perpetuate. We believe it is not untimely to remark that this fellowship and these ideals resulted in the main from common adventures in high places and from a common service in seeking to save for future generations adequate portions of our incomparable wilderness. As our membership increases, as new chapters are founded in various localities, it becomes necessary to remind ourselves again and again of those ideals which were intuitive in the earlier days of our comradeship.

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THE PUBLIC SERVICE Whether in Washington or in the field, the men who administer the vast areas of our national parks were never perhaps so capable and so devoted to the public weal as at the present time. The service indeed is so animated by the spirit of true patriotism that even a man of the type of Mr. Fall did not attempt to bring it into the sordid precincts of party politics. But the risk of appointing such a man to preside over such a service is evident. Furthermore, the injustice is great to men in any service when one less honest, less loyal than themselves is placed over them. Those of us who have a special interest in our national parks have now a special duty to see that no doubtful man is ever again appointed Secretary of the Interior without our vigorous protest. All of the people cannot watch all of the Government all of the time. This is a matter that must be watched, if at all, by just such organizations as the Sierra Club.

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THE MOUNT EVEREST EXPEDITION As this is written Brigadier General C. G. Bruce is making his third assault upon the greatest of mountains. Although General Bruce, being now fifty-eight years of age, will not be able to go beyond the base camp (at 16,000 feet elevation), it is conceded that success depends upon his direction of the expedition. The good wishes of the whole world (including the Dalai Lama) go with the distinguished mountaineers who are engaged in this magnificent enterprise. A world whose chief mountain is still unclimbed surely is not yet old and the little northern island which sends forth men to meet this challenge cannot have passed the meridian of its prowess and power.

REPORTS OF COMMITTEES

TREASURER'S REPORT

To the Directors of the Sierra Club:

The following report on the finances of the Sierra Club for the year ended December 31, 1923, is respectfully submitted.

JOSEPH N. LE CONTE, Treasurer

<i>Received:</i>	GENERAL FUND	
Dues from 309 new members, at \$5.00	\$1,545.00	
Dues from 1682 old members, at \$4.00	6,728.00	
Dues for former years; 107, at \$3.00	321.00	
Dues paid in advance	19.00	
Total dues received		\$ 8,613.00
Interest on savings accounts	\$ 126.48	
Interest on bonds (portion from Permanent Fund)	42.50	
Sale of pins, song-books, etc.	145.11	
Sale of BULLETINS	34.54	
Total miscellaneous receipts		348.63
Total received		\$ 8,961.63
Less: checks returned unpaid		61.00
Net amount received		\$ 8,900.63

Disbursed:

General Administration:

Salary of Assistant Secretary	\$1,200.00
Extra clerical help	152.05
Office rent—402 Mills Building	720.00
Office expenses: postage, stationery, supplies	664.50
Telephone and telegraph	160.56
Circular letters and other printing	432.15
Election expenses	60.00
Directors' traveling expenses	40.75
Sundry general expenses	33.55
Total	\$ 3,463.56

Bulletin:

Printing and cuts, 1923 BULLETIN	\$2,667.63
Distribution	349.62
Cost of securing advertisements	31.25
Total	\$3,048.50
Less: advertising revenue	146.88
Net cost	2,901.62

Local Walks Schedules:

Printing and distributing, San Francisco	\$ 389.89
Less: advertising revenue	86.50
Net cost	\$ 303.39

Chapters:

Southern California apportionment	1,007.00
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Mountain Lodges:

Le Conte Lodge expense	\$180.69
Shasta Lodge expense	61.25
Shasta Lodge construction	250.00
Tuolumne Soda Springs, purchase of certificates	100.00
Total	591.94

Miscellaneous:

Taxes	\$97.53
Library	86.16
Purchase of club pins	62.48
Dues to other organizations	27.00
Contribution to Park Conference	50.00
Total	323.17
Net amount disbursed	\$ 8,590.68

Summary:

Net amount received	\$ 8,900.63
Balance, January 1, 1923	3,813.82
Total	\$12,714.45
Net amount disbursed	8,590.68
Balance, December 31, 1923	\$ 4,123.77

On hand:

First National Bank, San Francisco	\$ 840.75
Mercantile Trust Company of California, San Francisco	851.39
American Bank, Security Savings, San Francisco	2,406.63
Office cash fund	25.00
Total	\$ 4,123.77

Received:

PERMANENT FUND

From six new life memberships at \$50	\$ 300.00
Interest on Savings Banks accounts	45.26
Part interest on Liberty Bonds	42.50
Total received	387.76
Balance on hand January 1, 1923	2,933.94
Total	\$ 3,321.70

On hand:

Liberty Bonds, Third 4¼%, par value	\$ 1,000.00
Liberty Bonds, Fourth 4¼%, par value	1,000.00
American Bank, Security Savings Branch, cash	1,321.70
Total	\$ 3,321.70

On hand:

ROBERT S. GILLETTE FUND

U. S. Treasury Note, Series B, 4¼%, par value	\$ 1,000.00
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On hand:

SPECIAL MEMORIAL LODGE FUND

Securities at par value of	\$ 4,000.00
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Received:

MEMORIAL LODGE CURRENT FUND

Interest on Gillette and Special Lodge funds	\$ 194.75
Balance on hand January 1, 1923	293.67
Total	\$ 488.42

Disbursed:

Additions to and repairs of LeConte Memorial Lodge	\$ 125.00
Part payment of salary Custodian Shasta Lodge	100.00
Total	\$ 225.00

On hand:

Wells Fargo Bank and Union Trust Company, cash	\$ 263.42
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SECRETARY'S REPORT—1923

To the Members of the Sierra Club:

During the past year 308 new members joined the club, and 199 were dropped from the list because of death, resignation, or non-payment of dues. The total membership at the beginning of the year 1924 was 2699.

The adoption of the revised by-laws early in 1923 resulted in the increase of the Board of Directors to fifteen members. Because of the large size of the club, this increased representation, and consequent opportunity for presentation of a larger range of views at the meetings of the board, is a most desirable factor.

The adoption of the policy of publishing a bi-monthly circular letter, which is sent out to the entire membership, has also proved to be a distinct benefit. It keeps the members in closer touch with the activities of the club and enables the club to appeal to its members for assistance in carrying on the work which the club is attempting to accomplish.

Because of the fact that these bi-monthlies convey to the members this information so regularly, it is unnecessary to go into detail regarding the work of the club during the past year. It is sufficient to summarize by stating that the annual dues were raised by vote of the members from \$3.00 to \$4.00 a year, which adds materially to the opportunity for effective action by the club. The laws of California were amended so that a club of the character of the Sierra Club can lawfully take property under will. The creation of a San Francisco

Bay Chapter of the Sierra Club was authorized. Through the generosity of Mr. McAllister, the stone lodge on Mount Shasta was completed and a custodian placed in charge for the summer, the club defraying a portion of his expenses. Due in part to the effective presentation of the Sierra Club representatives, the water-power filings on the various Yosemite valleys of the Kings River region by the city of Los Angeles were denied by the Federal Water Power Commission. Members of the club also aided in the purchase of the beautiful Redwood Meadow tract, situated near the Giant Forest, for presentation to the Federal Government when the Sequoia Park may be enlarged.

There were many other minor matters accomplished both by the main club and by the Southern California Chapter, all of which has been noted in the bi-monthlies.

Perhaps the most important of all this work has been the attempt to procure the enlargement of Sequoia Park. The bill for this enlargement is now pending in Congress, and we sincerely trust that something definite may be accomplished at this session. It affects the future of the Sierra and the welfare of California so definitely that it is without question the most important matter which the club stands back of at the present time.

Respectfully,

WILLIAM E. COLBY, Secretary

REPORT OF 1923 OUTING

The outing of 1923 taken during July and the early part of August in the Yosemite National Park proved as delightful as any outing the Club has undertaken. There were approximately 150 members in the party. Using the new and splendid Government trail, both from the standpoint of construction and magnificent scenery, which leads into Pate Valley, the Club had the opportunity for several days of enjoying the grandeur of this tremendous cañon. Trips were taken up to White Horse Cascades and Muir Gorge. The party then traveled by way of Benson Lake and as far as the headwaters of Kerrick Cañon where the climb of Tower Peak was made by several and the country lying to the south was visited. The view from Crown Point, which was easily accessible from the camp, proved to be especially inspiring and comprehensive. A knapsack trip, participated in by about thirty members, was taken past Snow Lake and Peeler Lake down to Twin Lakes, thence up the divide between Horse and Cattle creeks and over "Never-again" Pass past a most attractive chain of lakes, viz., Green, East, Gilman, Hoover and Summit, where the party crossed the crest of the Sierra again into the headwaters of Virginia Creek and rejoined the main party. The main party returned by way of Benson Lake and Matterhorn Cañon to the Tuolumne Meadows, where a two-night's camp was made. On account of the contemplated visit of President Harding to Glacier Point, the Club had been invited to entertain him the evening of his stay there with a typical Sierra Club camp-fire. Traveling via Hopkins Meadows the Club made a camp of several days near Mono Meadows. The unfortunate illness and untimely death of our beloved President altered the plans of the party. A side trip, in which nearly all the members of the party participated, was taken to Moraine Meadows and a large portion of

those taking the trip climbed Merced Peak. We found this very-accessible and little-visited region of the park to be a most enjoyable surprise. The scenery was so wonderful, the profusion of flowers so great and fishing so fine that it made this latter part of the trip seem the most enjoyable, if that were possible.

The plans for the 1924 outing to Glacier National Park from July 11th to August 9th have been noted from time to time in the bi-monthly circulars. This is proving so popular that we will have difficulty in taking care of all who will wish to join the party, for it must necessarily be strictly limited in number. It will afford the finest opportunity for seeing the entire Park and particularly the less frequented northern portion. Complete details of this outing will be found in the outing announcement.

Respectfully, WILLIAM E. COLBY, Chairman

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LE CONTE MEMORIAL LODGE—SEASON OF 1923

The Le Conte Memorial Lodge opened to the public this season (1923) on May 5th, and closed August 5th. The plan of opening the lodge two weeks earlier than usual proved to my mind advantageous, for more visitors are in the Yosemite in May than in August.

A large number of visitors inspected the lodge and made use of its various features. Year by year tourist travel to the Yosemite National Park is increasing, and the annual attendance at the Le Conte Lodge correspondingly is growing. Books and photographs are in demand. This year quite a number of nature books were purchased by the club, (a list thereof I attach to this report), and a large new bookcase was installed. Several volumes were donated.

Mrs. Charles Michael, the park botanist, kindly loaned us a remarkable set of mounted wild flowers, and these, set up on the center-table, were quite effective. Mrs. Michael's work is attracting considerable attention, and everything should be done to further botanical work in the park.

The Half Dome cables were put in good repair by the Government, and many climbers made the ascent of the Dome. The lower section of the cables, that part subject to destruction by avalanches, was taken down at the end of the season and will be replaced next spring.

The Le Conte Memorial Lectures were held this year as usual, and drew a fine attendance. Something will have to be done about the canvas backs to the seats in the Log Auditorium, for many are badly torn.

The Miner's Monument, near Bridalveil Meadows, is now completed. The club's outing party made a most satisfactory trip through the northern section of the park, starting and concluding the four weeks' tour at Yosemite.

It was altogether a very satisfactory season.

Respectfully submitted, ANSEL E. ADAMS, Custodian

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SHASTA ALPINE LODGE

The custodian, J. M. Olberman, opened the lodge on June 15, 1923, and closed same on September 15th, but remained there until October 1st.

About five hundred persons visited the lodge at Horse Camp; exactly 453

registered their names, and about 150 made the ascent to the summit of Shasta (14,162 feet).

The Knights of Columbus party on June 27th comprised about seventy-five persons, of whom fifty-six registered at the Horse Camp.

The above numbers are approximately five times the average of previous years.

The party led by Pierre J. Denand in July, comprising some thirty-three persons, made the ascent and is recorded as one of the largest parties to make the climb the same day.

Hon. Benjamin Fairchild and wife, of New York, made the ascent with two packers and a guide, spending one night at Thumb Rock and another on the summit. So far as known, Mrs. Fairchild has the distinction of being the first woman to accomplish this feat.

The earliest visitor to use the lodge was Mr. B. Vichausser, who climbed to the summit on March 28th.

The summer at the elevation of the lodge (8000 feet) is of about sixty days' duration, being the months of July and August. During this time the highest temperature was 84° (July 28th) and the lowest 30° (July 6th).

During the whole summer very little rain fell—in all about a quarter of an inch. The latest heavy snow was on June 22d and 23d, when ten inches of wet snow fell. The earliest snow was September 21st-23d, and 24th, with a fall of fourteen inches.

RECEIPTS AND DISBURSEMENTS FOR THE SEASON

Subscriptions:

Sierra Club	\$150.00	
Sisson Chamber of Commerce	100.00	
Yreka Chamber of Commerce	75.00	
Mount Shasta Mineral Spring Company	50.00	
Shasta Springs Hotel Co. (Wm. Watson & Sons)	50.00	
Harry Babcock	25.00	
M. Hall McAllister	200.00	\$650.00

Payments:

Custodian, three months (June 15th to Sept. 15th)	\$300.00	
Furniture, pipe-line, and sundries	219.14	
Pack-train and labor	101.00	
Dedication barbecue	19.86	
County Surveyor's Maps	10.00	\$650.00

We also received a gift from the McCloud River Lumber Company of twelve benches, well and strongly made and valued at one hundred dollars.

Some controversy had arisen as to the exact location of the lodge, as the surveys were made nearly fifty years ago, and the land having but small monetary value the lines have never been carefully or properly run. Some supposed the Horse Camp was in Section 29; others said it was in Section 30.

The committee is glad to report that two maps have been received from the County Surveyor of Siskiyou County at Yreka which have been checked up by the Southern Pacific Land Department and agree with their field-notes and

memoranda and conclusively prove that the lodge is located in Section 31. The Sierra Club's lease from the Southern Pacific Company has therefore been changed to read accordingly.

The Forest Service has promised a horse-trail for two miles from the Horse Camp to Snow Island, under Thumb Rock. At Thumb Rock also a lodge should be erected. The cost is estimated at \$3,000. Some day we should like to see yet another lodge at the summit. It is requested that the Directors make the same appropriation for 1924 as for last year—that is, \$150.00.

Respectfully,

M. HALL MCALLISTER,

Chairman Shasta Alpine Lodge Committee

NOTES AND CORRESPONDENCE

NEWS ITEMS FROM THE SOUTHERN SECTION

BY CHARLES J. FOX

Two successive dry seasons have crystallized a growing feeling of the necessity for unifying the efforts of organizations interested directly and indirectly in water conservation and in fire prevention. In January, 1924, eighteen organizations, including various chambers of commerce, water associations, reforestation organizations, the Automobile Club, Boy Scouts, Western Rangers, etc., united to form the Southern California Conservation Association. The objects are to devise means of fire prevention, the education of the public to the necessity for co-operation, securing necessary legislation, and increasing the speed and efficiency of the fire-fighting forces by a unification of control. Mr. Clair S. Tappaan is the Sierra Club representative.

In October twenty-five dollars was appropriated toward the fund for the Hal C. Tharpe cabin now being restored in the Sequoia National Park, because of its early historic association.

The stone chapel being completed on a promontory near Switzers Camp in the upper Arroyo Seco by Mr. Austin, assisted by friends, is unique in our mountains. The Southern California Chapter, largely by private subscription, is placing a John Muir memorial window, also unique in conception. This combines the view of the distant mountains with an etching upon clear glass of a rugged juniper. Mr. Arthur Benton is the chapel's architect.

The Southern California Chapter contributed thirty-five dollars during the past year to the Save-the-Redwoods League.

Twelve new bulletin-boards similar to the ten placed two years ago, financed by the Sierra Club and installed by the Forestry Service, will be put up at advantageous points this spring. The boards are about four feet square, and on each are posted government maps of the region, game laws, and fire regulations, together with an inscription-plate.

Six bronze register-boxes will be placed this summer on as many peaks—namely, San Jacinto, San Geronio, San Bernardino, San Antonio (all from 10,000 to 11,000 feet elevation)—and also on Mount Waterman and North Baldy. Each box bears on the cover the name of the peak, the elevation, and the Sierra Club name and emblem. It is believed a design has been worked out which will prove reasonably waterproof.

The old miner's cabin situated on the east ridge of Mount San Antonio, and purchased by the club last year, has been repaired and equipped with ten permanent bunks and two cots. There is a cookstove in one room and a heating-stove in the other. The cabin is not locked, but an attempt may be made in the future to equip it with bedding, so anyone making the trip to the summit need not be obliged to return for his sleeping-bag, as one of the best

parts of a spring climb up Mount San Antonio is the two thousand feet of straight snow-slide down from the Devil's Backbone.

At Muir Lodge the House Committee has enlarged the kitchen facilities and added to the equipment. Other improvements place the lodge in inviting condition. The insurance of two thousand dollars has been renewed. The lodge will accommodate about twenty persons for a week or two each during the summer. A store within half a mile carries a full stock of groceries, etc. Club members are welcome without charge; non-members, accompanied by members, are charged twenty-five cents a day. Northern members are welcome at all times.

Nearly fifty members of the Southern California Chapter enjoyed the hospitality of the Sierra Club in San Francisco and around the bay at Thanksgiving time, a round of entertainment leaving pleasant memories. The interchange of ideas possible on trips of this nature by the personal contact of the members from various sections of the state seems to make these events quite worth while.

The Friday-night dinners continue to gain in popular favor, there being an average attendance of one hundred and twenty-five. These gatherings are informal, no reservations being necessary. Many interesting accounts of trips and experiences are heard in conversation. The Wednesday-noon luncheons attract possibly an average of thirty persons, bringing occasional visitors from other mountain clubs.

The death in June, 1923, of Haven C. Hurst brought a keen sense of loss to the Southern California Chapter. His cheerful, kindly humor, his willingness to give of his time and ability to help in the work of the club, his loyalty—all have endeared him to our memory, and at times we feel that "he is not dead; he is just away."

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FIRST ASCENT OF MOUNT DARWIN—1908

BY E. C. ANDERWS, GOVERNMENT GEOLOGIST, NEW SOUTH WALES

DEAR MR. FARQUHAR:

Sydney, N. S. W., January 18, 1924

I was delighted to receive your letter of the 12th of December, and to know that my scrappy note on our itinerary including the ascent of Mount Darwin in 1908 has really been of interest to you. I think you can accept the note that I sent you as quite correct, although it was dictated from memory, for you will understand that, in new country, with relative youth on my side and with such an inspiring leader as Dr. Gilbert to point out all the marvels of mountain forms, of plant and animal life, and with the inspiration also of your magnificent Sierra themselves, it has not been difficult to retain in one's memory the main points of such a remarkable trip, conducted also under such happy circumstances as mine was.

I shall be pleased if you consider the article worthy of publication in your *SIERRA CLUB BULLETIN*, and I note also with pleasure that I am to be the recipient of a copy of the publication. Your colleagues are very kind, and I think that for the last ten years they have forwarded me a copy of the *BULLETIN* as it appears. I treasure these publications very much as they appear. A whole

circle of friends reads them with great interest, and the beautiful illustrations also are a source of perpetual admiration.

I would like to have given you some little incidents of our camp life, for Gilbert was one of the really great men of science in the United States. Perhaps no greater than he has appeared in the geological firmament in the world during the past fifty years, and his touches of humor and his wonderful knowledge of nature, his great humanity and his charm of personality were never to be forgotten by those who were privileged to be counted in his circle of friends. I have refrained, however, from mentioning the peculiarities and glories of the vegetation, and the animal and bird life, because it seemed to me that your readers already had a closer acquaintance with them than I had, seeing indeed that I had learned all that I know from one or two of your members.

I am glad that Mr. Robert Price remembers the isolated pinnacle at the extreme end of Darwin and forming its actual summit. It might be of interest to some of your readers to know that if the climbers wish to have decided thrills, they have only to climb this isolated pinnacle from the Plateau itself. The only way I know to ascend it is by descending the rock crack separating it from the plateau, and then working round on to a tiny ledge on the wall that forms the mighty face of Darwin at that spot. If there should be a high wind blowing, it is an exceedingly nervy operation to descend from the summit of the pinnacle and alight neatly on the narrow ledge about six or seven feet below, with the possibility of falling some couple of thousand feet. It would very likely be easier for two men to help each other along; but it was certainly awkward for me, as I had no companion on this final struggle. It may not be so very bad either unless a high wind is blowing.

With kindest regards and best wishes for a happy and prosperous New Year, I am Yours sincerely, E. C. ANDREWS, Government Geologist

DEAR MR. FARQUHAR:

Sydney, N. S. W., September 26, 1923

I received your very welcome and friendly letter of the 6th of April last, asking for a short account of the ascent of Mount Darwin at the head of the Evolution Valley. It would have given me great pleasure to have acceded at once to this request, but I have been exceedingly busy, and even now I find myself able only to supply a brief note from memory concerning the ascent.

Dr. Grove Karl Gilbert was perhaps the greatest geologist that the United States has produced, and you may imagine with what pleasure I hailed his invitation to spend the summer of 1908 with him in the Sierra Nevada, to discuss the general principles of ice action, as exemplified in the Sierra.

Our party included Dr. Gilbert as leader, with Dr. Willard D. Johnson and myself as geological companions.

We started about the 31st of July, 1908, from the University of California, Berkeley, and passed through Fresno and Schafer toward the middle fork of the San Joaquin, the trail along which had been monumented so well by Professor Joseph Le Conte of the University of California.

As we approached the district, we noted, far away on the horizon, perhaps as much as sixty miles distant in front of us, an immense mass, presenting a

wonderful arête along the sky-line. Johnson, who knew I was anxious to climb a high mountain, thereupon drew my attention to this formidable pile, and suggested that its ascent would furnish a good alpine scramble. I replied, "It is the roughest mountain in the whole landscape," to which he replied in turn, "That is the very reason why I would suggest its ascent. It is Mount Darwin, 14,000 feet high according to topographic survey, and not yet ascended." After that there was no thought of going back. It took us three days to draw on to Evolution Lake, where we spent another three days making a reconnaissance of the mountain, and in doing so we completely circuited it. Round the camp-fire, made of the sticks of the White Pine (*Pinus albicaulis*), we decided that the only practicable route was that leading up from some little distance below Evolution Lake itself.

On the morning of the fourth day, Johnson and I started alone. The frost was heavy, and the flowers in one alpine meadow which we passed were encased like so many living glories in a setting of transparent ice, the individual stalks of the myriad flowers appearing as wicks of candles, the thick candle itself being formed of the most wonderful ice transparency. The blooms were also encased in the solid transparent ice, but the glows and glories of the flowers were not destroyed, but rather intensified by the presence of this wonderful covering.

This frost was almost our undoing at the start, for Johnson led the way up a small chimney, and I repeatedly fell back because of the slippery surface caused by the presence of the great number of icicles which coated the sides of the cleft. But immediately afterward I heard Johnson calling from a short distance to the left that he had found another chimney, less studded with icicles, and up this we ascended. The way beyond this point led fairly easily to the great arête near the summit. Here huge blocks, thousands of tons in weight, appeared to lie loosely against each other almost without support.

Two thrills were experienced in the upper portion of the climb. Johnson was leading the way over the great loosened blocks and crawling round the bases of the uppermost instead of doing Blondin on the sky-line itself. Suddenly he descended some thirty or forty feet below me, and as I emerged at the base of a large loose block he called out loudly, "Window," and went on. I had no knowledge of the word "window" in climbing, and sprang after him, when to my astonishment I nearly fell through a great aperture leading to the other side of the sharp arête. Johnson had given the warning, but I had not understood, and I was almost precipitated down the fearful face of the Darwin Glacier. Shortly afterward, we surmounted the arête, and arrived on a sub-horizontal surface of very small area which constituted the main summit. Here Johnson wished to make some observations, but I indicated to him a small rock mass rising a few feet above the general surface at the extreme end of the plateau. He explained to me that we could consider we had ascended the mountain, the final six or eight feet being unscalable owing to its separation from the main ridge by a deep crack some ten feet in width which led down as a steep double chimney on both sides to the abysses below. Johnson was leader of the ascent, but I begged him to allow me to take our record in the small baking-powder tin he had brought with him for the purpose and

place it on the actual summit. He demurred, but gave me the tin, and I climbed down the chimney for some fifty feet, and then made use of a monstrous icicle one foot in diameter to assist me in climbing the broken masonry of the outstanding peak. I had just placed the record in position on the summit, and was looking round for a few loose rocks with which to secure it—and I commenced the fearful descent to the chimney for this purpose—when it dawned on me that the descent was more perilous than the ascent, especially as I had the terrible abyss below in full view the whole time that I was rounding the crag. I thereupon reached upward for the tin, placing it in my pocket, knowing well that I would never have had the courage to make the ascent of the chimney the second time. I arrived safely on the plateau, and received a severe scolding from Johnson, but he decided to place the cairn on the edge of the plateau at the foot of the slight rise which formed the actual summit of the mountain. I doubt very much if anyone else has ever sat on the actual summit itself, although it rises only a few feet above the general ridge plateau forming the main summit.

We descended without accident, and Dr. Gilbert was highly delighted to know that still another of the great Sierra giants had been conquered.

This ascent may interest some of your readers. It was our experience that there is only one feasible route, the others being extremely difficult and dangerous. The scaling of the final six or eight feet of the actual summit will be found to be a severe scramble, unless the rock chimney be filled with snow, in which case, of course, the climber would not appreciate my special difficulty.

With kindest regards, I am

Yours cordially,

E. C. ANDREWS, Government Geologist

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ASCENT OF MOUNT WINCHELL

On June 10, 1923, Harvey C. Mansfield, of Washington, D. C., John M. Newell, of Urbana, Illinois, and the writer completed what was probably the first ascent of Mount Winchell (13,749 ft.). The climb was made from the east side of the main crest, our camp being located on the eastern shore of the first Big Pine Lake (9900 ft.).

The route followed led us high on the Palisade glacier, as we were anxious to secure an intimate view of the North Palisade. From there we traversed the glacier to the north until we reached the base of Mount Winchell. We then proceeded directly up the long talus slope and entered the main chimney of the southeast face. The steep rock ledges encountered in this chute soon forced us to take to the crest of the ridge on our right. Up this we climbed until we had reached the head of the chimney we had just left and found ourselves on a knife-edge running southwest to the final summit of the peak. In less than an hour we were on top.

The view from Mount Winchell is superb. It commands an unobstructed panorama, except where Agassiz Needle on the north and the North Palisade on the southeast partially obscure it. We were favored with a splendid day. Far to the south we could easily make out such peaks as Williamson, Whitney,

and the Kaweahs. I have never seen so much snow in the Sierras. The whole landscape to the west of the main crest was one expanse of white, broken only where dark crags, too steep to retain the snow, formed a sharp contrast.

The summit yielded no evidence of having been attained before, so that we felt confident that we were the first ever to stand there. After building a little monument and drinking in the view for over an hour, we left a memorandum of the ascent, and then started down by the same route we had come up. On reaching the base of the peak, instead of returning by the glacier, we went straight down the gully which drains the cirque between the North Palisade and Mount Winchell. Although later this route involves some rough going along Big Pine Creek, it also includes the most ideal snow-slide that I have ever had the pleasure of finding. The entire descent took us barely three hours, less than half the time occupied on the climb.

Mount Winchell was not really dangerous or difficult to ascend. But the peak as a whole is exceedingly rugged and affords many thrills. For the benefit of future climbers, it is my opinion that any other route than the one we chose, if not impossible, would certainly require daring and skill.

W. B. PUTNAM, Berkeley, California

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ASCENT OF MOUNT RITTER (13,156 ft.) AND NORTH PALISADE (14,254 ft.)

BY HOMER D. ERWIN

Mount Ritter was climbed by Homer D. Erwin, Seth B. Benson, and Joaquin Sanderson September 1, 1923. The climb was made from the head of Thousand Island Lake to the summit. An unusually hard route was taken across the glacier and on to the jagged northwest ridge to the summit. The only danger was loose rock on the arête and hard snow on the névé above the bergschrund, which required step-cutting. A hard day of seven hours was taken in the climb.

I recommend a climb of Ritter earlier in the season, as stormy weather was encountered. The Sierra Club scroll in the tube at the summit should be replaced by a new blank.

The North Palisade was scaled by Homer D. Erwin and Seth B. Benson September 10, 1923. The ascent was made by the regular route up Glacier Creek and return by Palisade Basin. The climb offered no unusual difficulties except the danger of dislodging loose rock. While on the summit a light snow precipitated. In the descent, high on the majestic slopes, the eclipse of the sun of that date was witnessed. This wonderful climb required ten hours' round trip from Deer Meadow.

The middle of September is entirely too late to make an ascent of the Palisades, as weather is unreliable so late in the high peaks.

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HOW TO REACH MOUNT MCKINLEY NATIONAL PARK, ALASKA

The Superintendent of Mount McKinley National Park, Henry P. Karstens, sends the following information for reaching the park:

Frequent steamship service is maintained by regular lines between Seattle and Seward or Anchorage, connecting throughout the year with the Government railroad operating between those points and Fairbanks.

The 1924 time-table of the Alaska Railroad (McKinley Park Route), operated by the United States Government, advertises train services as follows:

Lv. Seward	(Monday and Thursday)	8:00 a.m.
Lv. Anchorage		2:15 p.m.
Arr. Curry		8:00 p.m.

(Stop over night at Curry. Comfortable hotel maintained by the Alaska Railroad.)

Lv. Curry	(Tuesday and Friday)	7:30 a.m.
Arr. McKinley Park		1:04 p.m.
(Arr. Fairbanks)		7:30 p.m.

RETURNING

(Lv. Fairbanks)	(Tuesday and Friday)	9:00 a.m.)
Lv. McKinley Park		3:37 p.m.
Arr. Curry		9:00 p.m.

(Stop over night at hotel)

Lv. Curry	(Wednesday and Saturday)	7:45 a.m.
Arr. Anchorage		2:00 p.m.
Arr. Seward		7:45 p.m.

Return from the Park may be made by railroad to Fairbanks; thence by auto stage line in the summer months over the Richardson Highway to Valdez. Trips on the railroad may be made with comfort any month of the year. Clothing suitable for northern United States is satisfactory in Alaska. Skiing, dog-sledding, and other outdoor sports in the winter, as well as the northern lights (*aurora borealis*), and hunting, fishing, and expeditions into the park to the glaciers of Mount McKinley in the summer, are the great attractions.

For particulars write to the Superintendent, McKinley Park, Alaska, or to the Alaskan Engineering Commission, Anchorage, Alaska.

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LOCATING THE YOSEMITE

All Californians, and San Franciscans in particular, will be interested to know that a true line of meridian east and west goes through the Yosemite at the site of the Sentinel Hotel, and the same line crosses Twin Peaks at the head of Market Street in San Francisco;—

The following is the story: A few months ago while visiting the Yosemite the writer was asked by some fellow travelers, "How far north is San Francisco?" They stated that they had motored from the eastern states by the southern route, and in Los Angeles were informed that San Francisco was "way up north from the Yosemite."

I informed them that they were in error; that Yosemite Valley was directly



GORGE BETWEEN NORTH PALISADE AND MOUNT WINCHELL
LOOKING SOUTH-SOUTHWEST
Photograph by W. B. Putnam





CROWN POINT FROM BARNEV LAKE
Photograph by E. A. Alsed

east of San Francisco's bay region, but I did not know the exact line. By taking an enlarged map of the Yosemite I found that the Yosemite Village is exactly $37^{\circ} 44' 30''$ North Latitude. On reaching San Francisco I called at the Hydrographic Office in the Merchants Exchange Building and asked the good-natured and efficient official to take a map of the city and let me know where the above line of $37^{\circ} 44' 30''$ North crossed the bay, and was much surprised to find out that it cuts directly through the center of San Francisco and crosses between the two Twin Peaks and into the Pacific Ocean at Ingleside.

So San Francisco and the famous valley swing on the same clothes-line, telegraph wire, or radio east and west.

M. HALL McALLISTER

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ERRATUM

Mr. William E. Colby has pointed out that Plate CXXVII, volume XI, bears the caption "Cirque Mountain from Barney Lake," whereas it should read "Crown Point from Barney Lake." Another view of this same mountain faces this page.

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NOTABLE GIFT TO THE CLUB

Mr. Jesse B. Agnew has again shown himself to be one of the club's most generous and staunch friends. In memory of his beloved wife, who passed away last fall, he has presented a patented tract of eighty acres on the floor of Kings River Cañon to the Sierra Club. This takes in a small portion of the lower end of the Zumwalt meadow and extends across the river, including the lower portion of Granite Creek. A finer memorial to Mrs. Agnew could not be established, and as time goes on its value to the club will increase, for we trust that some day we will have a lodge erected there.

The Board of Directors of the club have by unanimous vote elected Mr. Angew a Patron of the club and a Life Member.

FORESTRY NOTES

By WALTER MULFORD*

AN IMPORTANT FORWARD STEP IN SOUTHERN CALIFORNIA

What bids fair to be a highly important forward step in forestry was taken on November 12, 1923, in Los Angeles, by the formation of an exceptionally strong organization, the Southern California Conservation Association. Organized to minimize duplication of effort and to harmonize local conflicting viewpoints and misunderstandings, the new association is composed of representatives from the following organizations: American Reforestation Association, Angeles Forest Protective Association, Associated Chambers of Commerce of San Gabriel Valley, Automobile Club of Southern California, Boy Scouts of America, California Fruit Growers Exchange, Hollywood Hills Association, Joint Chambers of Commerce of San Fernando Valley, Los Angeles Chamber of Commerce, Los Angeles County Farm Bureau, Los Angeles Realty Board, Pasadena Chamber of Commerce, Pomona Protective Association, San Gabriel Valley Water Users Association, Sierra Club, Tri-Counties Reforestation Committee, Water Consumers Association of Riverside, and Western Rangers. Representatives of the United States Forest Service, the state forester, the county forester of Los Angeles, the chief engineer of the Los Angeles flood control project, and others have been invited to act as an advisory council.

There are approximately one hundred thousand members in the organizations composing the association. The scope of the organization is indicated by the standing committees: reforestation, flood control, water survey, fire protection, laws and legislation, education and publicity, finance, recreation and forest use. The chairmen of these committees and the president constitute an executive committee which governs the association.

Another organization has recently been formed in many of the towns adjacent to the Angeles National Forest to supply trained men for assistance in preventing and fighting fire. The men selected are to be given training in fire work, and will become part of the emergency fire-fighting force. One of the great difficulties in southern California has always been to obtain good crew leaders, and it is hoped that this new move may help to solve the problem.

WITH THE CALIFORNIA LEGISLATURE OF 1923

The California legislature of 1923 considered a larger number of important measures affecting forestry than has any previous legislature of recent years. It is worthy of special note that lumbermen, foresters, and the representatives of other interested parties worked in hearty accord for the advancement of

*The forestry editor wishes to thank the following friends of the Sierra Club, who have furnished most of the material used in preparing this summary of happenings in California forestry in 1923: Mr. E. I. Hutchinson, in charge of public relations in the San Francisco office of the United States Forest Service; Mr. Newton B. Drury, secretary of the Save-the-Redwoods League; Mr. Merritt B. Pratt, state forester; and Mr. Stuart J. Flinham, county forester for Los Angeles County.

forestry. Some of the more important measures passed by the legislature are here mentioned, including bills vetoed, as well as those signed by the governor.

Fire Patrol Required.—An important advance in forest fire protection was effected by senate bill 656, which received the governor's signature. This provides that every owner of forest land except in redwood forests shall furnish or provide a sufficient and adequate fire patrol therefor during the season of the year when there is danger of forest fires, which patrol shall meet with the approval of the State Board of Forestry. In the event that any owner or owners shall fail to provide such patrol, the state forester is authorized to provide the same at a cost not to exceed three cents per acre per annum. All expenditures made by the state forester in protecting lands not properly protected by its owners shall constitute a lien against such lands, to be collected by due process of law. Owners of land coming under the provisions of this act who shall reside within one and a half miles of the farther limits of the land are not compelled to maintain any additional patrol.

Shortening of the Deer Season.—A bill shortening the deer season by postponing the opening date two weeks, thereby placing it beyond the peak of the fire season, was agreed to by nearly all interested parties as being advisable, both from the standpoint of the game and for fire protection. The bill passed the legislature, but was vetoed by the governor.

Control of Forest Insects.—Senate bill 119, now a law, declares pine-beetles and other harmful forest insects a public nuisance, and provides that, upon notification of a condition of forest insect infestation, the state forester may make an investigation and declare a zone of infestation. Then upon written application of owners of sixty per cent of the land within this zone the state forester shall notify all owners to take measures for the control of the insect pests. Upon failure to do so, the state forester may undertake the necessary control work and distribute the cost to the owners of the infested timber.

Forest Taxation.—A bill providing a special form of taxation designed to encourage reforestation was vetoed by the governor because of the opinion of the attorney-general that the measure would be unconstitutional unless adopted as a constitutional amendment.

Suitable Forest Park Sites.—Assembly bill 106, passed and approved by the governor, authorizes a comprehensive survey and report by the State Board of Forestry on all suitable forest park sites in the state. It also provides a method for procuring such parks by purchase, gift, devise, donation, or proceedings in eminent domain, and for procuring money for the acquisition and maintenance thereof. The State Board of Forestry is vested with jurisdiction and control of such parks after their acquisition by the state, and of any funds provided for the purchase or maintenance of park areas.

Closed Fire Season.—The enactment of senate bill 498 amends section 16 of the forestry laws of 1905 by establishing a closed season between May 15th and October 31st, during which it is unlawful to burn brush, stumps, logs, fallen timber, fallows, slash or grass, brush or forest-covered land, or any other inflammable material unless done under written permit from the state forester or his duly authorized agent. It is provided, however, that no written permission is necessary to burn inflammable material in small heaps or piles

where the fire is set on a public road, in dooryard premises, corrals, gardens, or plowed fields, at a distance not less than one hundred feet from any woodland, timber, or brush-covered land or field containing dry grass or other inflammable material. These restrictions do not apply to the ordinary use of fire or blasts in logging in the coast redwood region.

Logging Engines.—As a result of the passage of senate bill 497, it is now required that between May 15th and October 31st all logging engines must be equipped with shovels and axes for fire-fighting, and each steam-operated engine must be equipped with an adequate fire-pump and not less than two hundred feet of hose. It is also provided that inflammable material, including snags, be cleared away from an area at least one hundred feet in radius about each engine. Exemption from these requirements is made for logging operations in the coast redwoods.

THE NATIONAL FORESTS OF CALIFORNIA

The Modoc Lava Beds.—Following a recent visit of Forest Service officers to various points in the Modoc Lava Beds, a region little known even among the natives of Modoc County, the Forest Service is calling attention to the natural wonders with which this portion of the Modoc National Forest abounds. Caves of a size rare in this western country and fantastic lava formations in great variety are easily accessible by automobile. But to reach Captain Jack's stronghold, scene of the Modoc War of 1873, means six miles of lava-bed walking from the nearest road. Several Modoc County organizations are now endeavoring to build a fitting monument to commemorate the various points of interest on the battle-ground. The lava beds are easily reached by automobile from Klamath Falls, Alturas, or the northeastern part of the Shasta National Forest.

The Most-Frequented Mountain Playground in America.—Four and one-third million people visited the national forests of California during 1923 in search of health, rest, and recreation. Of this number, about two million four hundred thousand were transient motorists, the remainder being campers, sportsmen, hotel and resort guests, summer-home owners, picnickers, hikers, and tourists. The Angeles National Forest leads the list with over one million six hundred thousand visitors, thus ranking as the most-frequented mountain playground in America.

Protection of Wild Flowers.—The forestry editor is not prepared to express an opinion as to the relative destruction of wild flowers by four-footed and two-footed enemies; but the following statement from Mr. Charles H. Shinn, of Northfork, awakens a sympathetic response. He writes: "One of the most plausible grounds of opposition in some quarters to grazing of livestock in the national forests is the belief that such grazing will ultimately destroy some species of our native flowers. Mr. Rachford, of the Forest Service, inspector of grazing, discussed this lately in a talk at Portland. His main point was that well-managed grazing in the forests has never done appreciable injury to the flowers, because most of the delicate little annuals are past their best bloom and beginning to seed before cattle-grazing seasons open; and many showy perennials, such as azaleas and rhododendrons, are not eaten by stock. No,"

continues Mr. Shinn, "the really serious menace to our wild flowers lies in the frame of mind of the camper and tourist. When you see an automobile decorated with thousands of California poppies (which, by the way, is another species that cattle never eat); when a temporary camp is decked with handful after handful of 'cream-cups,' 'baby-blue-eyes,' or maidenhair fern, because 'my children just love to pick flowers'; when another camp, recently deserted, shows dozens of plants dug up by the roots, including rare ferns and bulb, evidently on the theory that they would be taken home and planted in the garden, but, because they drooped, were deserted—then it is time for all wild-flower enthusiasts to rally. There are the graves of more of our beautiful wild flowers than a thousand mountain cattle would destroy in three seasons. The writer of this item has noted this wastage of flowers in camps and talked to dozens of campers these twenty years about it. The chief remedy is more study of botany and of conservation—more education."

California Leads the Nation in Forest Fires.—"The worst forest-fire state in the Union." This, in brief, is California's national forest-fire record for 1923. More fires were started in the national forests of California this season than during any year since 1917. Out of the total of 1367 fires, nearly fifty per cent resulted from lightning. The other half were due to human carelessness, and were, therefore, preventable. Of the man-caused fires, tobacco-smokers started 358 (or 50 per cent), and campers, 117 (or 16 per cent). Railroads, brush-burning, lumbering, and incendiarism accounted for the rest. The total area burned over by fires within the national forests was 173,257 acres, of which 145,437 acres were government land, and 27,820 acres private holdings. The Forest Service spent more than one hundred thousand dollars in extinguishing these conflagrations.

In the Angeles, Santa Barbara, and Cleveland national forests of southern California there were 191 fires which destroyed the tree and brush growth on 127,430 acres. All but ten thousand acres of this total resulted largely from two big fires in the Santa Barbara National Forest, the other southern forests experiencing a favorable fire season. In northern California the Plumas National Forest, with 224 fires, holds first place, followed successively by the Shasta, Lassen, and Klamath forests. There were seventy-six incendiary fires, of which twenty-six were on the Trinity Forest and sixteen on the Plumas. The greatest damage by fire in the northern part of the state occurred on the California Forest, where 20,643 acres were swept by flames. The Mono National Forest, on the east slope of the Sierra, had only six fires, covering an area of only thirty-three acres.

Eighty-six per cent of all fires that started in the national forests were extinguished by forest rangers and co-operators before they had covered an area of more than ten acres each.

Beware of Carelessness with Fire!—California national forest officers during 1923 handled 152 law enforcement cases against violators of the state and federal forest fire laws, and have secured convictions, to date, in 120 cases. And during the same period state forest rangers made sixty-seven prosecutions for violations of the state fire laws, with fifty-five convictions thus far secured. The majority of the state's cases were brought up for burning without permit

and for setting fires carelessly or accidentally. Meanwhile, the department of forestry of Los Angeles County made ninety-three arrests, and secured eighty-five convictions, for violations of forest-fire laws.

Forest Fires Made to Order.—"A gentleman came into the supervisor's office on the Stanislaus Forest the other day with the following request: 'I would like to get about fifty small trees to be cut down, moved to a spot near the Brightman Flat Bridge, stuck into the ground again, and burned.' Crazy? Oh, no! Just the advance agent for the Blank Movie Studios. They buy anything for the movies, and he was shopping for a forest fire. He couldn't use any of the assorted conflagrations we had on hand, so he wanted the materials to make his own. The fifty-two trees were marked for removal, practically all fir and cedar from two to twelve inches in diameter and ten to fifty feet high. Since it is rather difficult to scale timber of this size, the trees were charged for at Christmas-tree rates—fifteen cents each up to twenty-five feet high, and twenty-five cents each for trees over twenty-five feet in height. The story to be filmed requires a rocky stream, a narrow bridge, and a roaring forest fire. The bridge across the Middle Fork of Stanislaus River, with its background of jagged ridges and heavy patches of timber, seemed to fill part of the requirements, but there was only a thick patch of scrubby manzanita and a couple of large yellow pines on either edge of the road in the foreground, which would not look at all terrorizing to the average movie fan when flashed all aflame on the silver sheet, so the forest just had to be built up. The large trees will be wrapped in asbestos to the first limbs, to avoid damage (!). A fire line thirty feet wide has been cut through the brush, and fire-extinguishing appliances of every description will be on hand to prevent the flame, which will last about two minutes, from getting away. Twenty-five bales of excelsior will be the principal source of flame and smoke while the camera men turn their cranks."

National Forests and National Parks.—Perhaps all Sierra Club members have clearly in mind wherein national forests and national parks differ. But it may do no harm to tell ourselves about it again, this time with the following letter recently sent by District Forester Paul G. Redington to California editors: "Much confusion and misunderstanding exist in the public mind as to the essential differences between national forests and national parks. It is hoped that the following facts will help the members of your office to understand clearly the commonly accepted standards for the establishment and administration of these public areas. There are seventeen national forests in California, with a net area of over nineteen million acres. The national parks of the state are four in number, and include an area of approximately one million acres. The national forests are administered by the Forest Service of the U. S. Department of Agriculture; while the national parks are under the jurisdiction of the National Park Service of the Department of the Interior.

"The purpose of the national forests is to protect and maintain, in a permanently productive and useful condition, lands unsuited to agriculture, but capable of yielding timber or other general benefits, such as forage for livestock, water for irrigation, domestic use, and power, and playgrounds for our citizens. All the resources of the national forests are developed to the greatest possible

extent consistent with permanent productivity under the principle of co-ordinated use. *The principle of use of resources is the vital distinction between national forests and national parks.*

"The purpose in creating national parks is to preserve the scenery, the natural and historic objects, and the plants and wild life. The objects are the enjoyment of the people and the aiding of education and scientific study by keeping such areas unimpaired. National parks are protected completely from any and all utilitarian and commercial enterprises save those necessary for and subservient to legitimate park uses.

"Many head-writers still confuse the national forests with parks; others call them 'forest reserves,' although Congress many years ago officially changed the name of these federal areas to national forests. I am sure that everyone at all familiar with the use that is being made of national forest resources for the benefit of our citizens and the upbuilding of California will appreciate the inappropriateness of the old term 'reserve.'"

THE REDWOODS

Perpetuation of Second-Growth Redwood Forests.—An important bulletin published in May, 1923, by the Division of Forestry of the University of California, embodying the results of two years of work in the coast redwoods, gives most encouraging news as to what should now be the future of the forests in that region. Everyone is agreed that a reasonable acreage of the finest timber must never be lumbered. But what of the far larger area that must necessarily be stripped of its original forest? Is it to be left an unsightly waste, or kept attractive and useful by a cover of carefully-managed young forests—which, by the way, have a beauty all their own that is not to be despised? The answer is indicated in the following brief statement of the conclusions reached by Professor Donald Bruce, author of the bulletin.

The Norway spruce, one of the fastest-growing trees used by European foresters, can produce, on the best forest soils, about 8800 cubic feet per acre at sixty years of age; the redwood, on the best forest soils and at the same age, about 20,200 cubic feet. Western yellow pine on the best sites in the Sierra at sixty years can yield about 52,000 board feet per acre; the redwood, again at sixty years, on the best sites, about 139,000 board feet per acre! At fifty years of age, redwood produces more than twice as much as white pine, one of the most rapid-growing conifers of our eastern states. On poorer soils the growth of redwood, in comparison with other timbers, is equally remarkable. Therefore, concludes Professor Bruce, "*redwood has apparently the most rapid growth of all the conifers, and it can be raised on the shortest rotation (age at which the timber is harvested).*" This fact, coupled with the comparative ease of reproduction and the relatively low fire risk, makes it perhaps our most attractive species for forest management."

And It Is Actually Happening!—This management of cut-over redwood lands by the lumbermen themselves, for the perpetuation of their forests and therefore their business, is going forward in Mendocino and Humboldt counties by leaps and bounds, under the guidance of Major David T. Mason, of Portland, Oregon, consulting forest engineer for the redwood companies. The

extensive forest nurseries established by the Union and Pacific lumber companies at Fort Bragg and Scotia are already yielding very large numbers of redwood seedlings, and a big slice of cut-over land will be replanted during the winter of 1924.

Perpetuation of Virgin Redwood Forests.—Meanwhile the great work of the Save-the-Redwoods League in saving areas of old timber goes steadily forward. Another unit was added to the Humboldt State Redwood Park through the gift to the State of California of 166 acres of virgin redwood by Mrs. Ziporah Russ, of Ferndale, California. The grove is situated on the state highway twelve miles north of Orick. The gift is of particular importance because it is the first tract to be preserved for public use in the district between Eureka and Crescent City. The stand of timber is unusually heavy, the grove containing over thirty-three million board feet of redwood and a corresponding amount of fir and other timber. It is conservatively valued at over one hundred thousand dollars. In deeding the grove to the state, Mrs. Russ asked that it be made a memorial to her husband, Joseph Russ, who came to Humboldt County in 1852, and to all the pioneers with whom he helped to build up the commonwealth. It is stipulated in the deed that the grove shall be kept forever in its primeval state.

Funds have been established during the year for the purchase of three more groves for the Humboldt State Redwood Park. Through Mr. E. E. Ayer, of Chicago, a councilor of the league, twenty thousand dollars has been made available to the league. From a portion of this fund the league has purchased and deeded to the state six and a half acres of land adjoining the Phillipsville Grove, thus affording adequate camping facilities at that point. A donor, who wishes his name withheld, has established another fund of twenty-five thousand dollars for a redwood grove. The third fund is being collected by the California Federation of Women's Clubs. At their annual convention in Eureka in May, 1923, the organization voted unanimously to secure a fund of approximately sixty thousand dollars. A substantial amount is already in hand.

A tract of redwood timber in San Mateo County was saved during 1923 by the action of the county board of supervisors in appropriating seventy thousand dollars for the purchase, as a county park, of the McCormick tract of 310 acres on the county road six miles from Pescadero. The area contains approximately eighteen million board feet of timber. It extends on both sides of Pescadero Creek, and within it are numerous camping-places for the use of the traveling public.

THE STATE'S WORK IN FORESTRY

Budget.—The governor's budget as submitted to the 1923 legislature included an exceedingly drastic reduction in the sum allotted to the State Board of Forestry. The amount was finally increased considerably—enough to enable the state to receive certain federal funds which are available only when the state appropriates an amount equal to the federal allotment.

Personnel.—With the exception of Mr. Merritt B. Pratt, state forester and *ex officio* member of the board, the governor in 1923 appointed an entirely new

state board of forestry, consisting of Mr. Francis Cuttle, of Riverside, Mr. Fred A. Ellenwood, of Red Bluff, Mr. E. J. James, of Ukiah, and Mr. George H. Rhodes, of San Francisco. Mr. Ellenwood was elected chairman.

Policy.—At its first meeting, held in San Francisco on November 21-22, 1923, the new board adopted the following policies as its objectives: appropriation by the state legislature of sufficient funds for the prevention and suppression of forest, brush, grain, and pasture fires outside of the national forests and national parks; acquirement of logged-off areas, both in the redwood and pine regions, as a nucleus for state forests for a future timber supply; enactment of state legislation necessary to enable the state to obtain title to all privately owned timberlands, cut-over lands and brush-covered lands on watersheds, after the period has expired during which the owner of such lands has a right to redeem them under delinquent-tax sales; adjustment of taxes on privately owned timberlands in such a manner as to encourage reproduction, perpetuate the timber supply, and preserve the watershed cover; maintenance and improvement of the present state parks for the use of the public for recreational purposes and the acquirement of additional desirable areas.

LOS ANGELES COUNTY

The county forester of Los Angeles County, Mr. Stuart J. Flinham, is responsible for a wide range of activities. Fire prevention and suppression, the maintenance of large forest nurseries and the establishment of extensive forest plantations, game protection, the care of shade and ornamental trees along public roads, and of county parks and the grounds around various county institutions, the enforcement of laws protecting the Christmas-berry and the flower-spikes of the yucca—all these and other projects are included in the county's program. The extent of the work may be indicated by a typical item: in the year ending June 30, 1923, the forestry department responded to over four hundred fire calls.

BOOK REVIEWS

REMEMBERED YESTERDAYS* In this charming and highly entertaining book Robert Underwood Johnson has made a very valuable contribution to American literature. Autobiographies have a prescriptive right to be read, for as a rule they are vivid, concrete, and consequently interesting. But when the personal reminiscences of a many-sided and useful life flow out of a pen that has learned deftness by addressing popular audiences, the inherent interest of a book such as this is intensified. Mr. Johnson joined the editorial staff of *Scribner's Monthly* (changed to *Century Magazine* in 1881) in 1873, and remained with the magazine for forty years. During the last four years he was editor-in-chief, succeeding Richard Watson Gilder at the time of the latter's death, in 1909.

There are certain sections in this colorful volume to which members of the Sierra Club will turn with keen anticipation, and they will not be disappointed by what they find. Note, for instance, such indications of contents as the following: "John Muir and Our Activities in Forest Conservation," "With Muir in the Sierra," "The Character of Muir," "The Origin of the Yosemite National Park," "Fighting for the Yosemite," "The Retrocession of the Yosemite," "Larger Movements in Conservation," "The Sargent Commission's Great Service (1896-97)," "The Fight for the Hetch Hetchy," "A Visit from Muir," "Muir's Writings," etc.

During the long Hetch Hetchy fight Johnson was untiring in aiding Muir and others to convince the country that this raid upon the Yosemite National Park was not justified by any valid reason. The outcome has shown beyond all question that commercial considerations and not a compelling public necessity brought about the destruction of the valley. It begins to appear further that San Francisco will have to pay enormously more than estimated if it ever gets drinking-water from Hetch Hetchy, and that half the amount already expended would have secured abundant filtered water nearer home—water which Dr. Rupert Blue declared at one of the public hearings in Washington to be safer than unfiltered Hetch Hetchy water.

In Mr. Johnson's long literary career he touched intimately many men and women of distinction. So it happens that we catch in one of his chapters delightful glimpses of Mark Twain, Emerson, Lowell, Whitman, Burroughs, Stedman, Howells, and many others. There are, too, some revealing letters by Joel Chandler Harris. In short, this is a book of charm and of power, of delicious humor and sweet memories of other days. Nor is there wanting the scent of battle and the record of victorious adventure in the service of high ideals. There are few books that may be commended more confidently to our readers.

WILLIAM FREDERIC BADÈ

* *Remembered Yesterdays*. By ROBERT UNDERWOOD JOHNSON. Little, Brown, and Company, Boston. 1923. Pages xxi+624. 35 pages of illustrations. Price, \$5.00.

NATURE IN AMERICAN LITERATURE* It is surprising that no one else has attempted such a series of studies as Mr. Norman Foerster has brought together in this volume. "Studies in the Modern View of Nature" the author calls them, and the men whose work he subjects to scrutiny are Bryant, Whittier, Emerson, Thoreau, Lowell, Whitman, Lanier, Muir, and Burroughs. No one will question the fact that all these writers have left in American literature the impress of their love for nature. But the differences in their love are greater sometimes than the resemblances. Compare Bryant, for instance, with Thoreau. If the theological sentimentalism of the former is described as "modern," the "ancient" will have to be sought centuries farther back. In fact nothing could make more apparent the variety of the human response to the appeal of nature than the output of such a series of individuals as this. Thoreau, Muir, and Burroughs easily take the foremost rank in this list. The latter, it is true, did not think very highly of Thoreau's accuracy of information and observation. But Thoreau was a man of such profound insight and such a genuine feeling for nature that his defects will not detract from the vitality of his fame. In any case he is the one whose writings Muir found most satisfying, as may be seen by the freedom with which he marked and commented his volumes in perusal. Mr. Foerster's study of Muir in chapter VIII is a fine piece of work, and only needs to be strengthened and here and there deepened by a study of Muir's letters, when they appear. "A poet well schooled in the discipline of facts," is one of his characterizations of Muir. "It is as a literary naturalist," he writes in another connection, "that Muir is perhaps greater than Thoreau and certainly equal to Burroughs." I feel convinced that he was greater than Burroughs in the field of science, for the latter never did anything equal to Muir's "Studies in the Sierra." We warmly commend Mr. Foerster's work as an interesting and informing book that will lift lovers of nature to new heights of appreciation.

WILLIAM FREDERIC BADÈ

TREES OF CALIFORNIA† Humanity, like the fabled giant Antæus, renews its strength when it touches Mother Earth. For it is significant that a few generations of unbroken city life seem to involve decay of a family's vitality unless rejuvenated by fresh blood from the country. A community should, therefore, hail with joy anything that tends to promote and deepen the healthful relations that exist between man and nature. Such a real addition to the principal assets of California life is Dr. Willis Linn Jepson's new edition of *The Trees of California*. One almost hesitates to call it a new edition, for, illustrated as it now is with one hundred and twenty-four original drawings, besides being completely rewritten and enlarged, this choice little book fairly lures the happy possessor to slip away with it into the nearest cañon or across the eastern hills.

* *Nature in American Literature*. By NORMAN FOERSTER. The Macmillan Company, New York. 1923. 324 pages. Price, \$1.75.

† *Trees of California*. By WILLIS LINN JEPSON. Associated Students Store, Berkeley. 1923. 240 pages. 124 drawings. Bound in Holliston Buckram. Price, \$3.50.

The book begins quite appropriately and scientifically with the Redwood and the Big Tree, California's most distinguished conifers. In discussing the Redwood tree Dr. Jepson does not confine himself to botanical technicalities, but writes interestingly of the great variety of uses to which redwood can be put, tells the story of its discovery by early explorers, adding facts which are the result of his own most careful research; nor does he overlook its esthetic claims and the tragic urgency of saving some choice portions of the diminishing remnant of these noble trees.

Not less interesting is Professor Jepson's condensed and yet comprehensive discussion of the Big Tree (*Sequoia gigantea*). The designation Wawona, now borne by one of the finest Big Tree groves, was the name given to the Sequoia by the Mokelumne tribe of Indians. Dr. Jepson also devotes three pages (152-5) to a historical sketch of the Sequoia so far as it has been read in the geological record.

A reviewer is somewhat embarrassed in the effort to give a just conception of the contents of this book, whose size (240 pages) is quite out of proportion to its value. Take, for instance, the author's treatment of the California Buckeye (*Aesculus californica*). There are of this tree alone seven text figures with many details of growth changes. One of these figures shows successive growth modifications of the winter bud scales of Buckeye, from which it at last became evident that the scale itself was the modified petiole of the leaf that follows.

As Professor of Botany in the University of California and President of the California Botanical Society, Dr. Jepson has long ranked as the leading authority in his field. In a sense this book is but a by-product of his monumental *Flora of California*, which he is issuing part by part as his untiring industry masters difficulties that would discourage a man of less heroic mould. In congratulating him on this accomplishment we feel sure that all California lovers of the outdoors will wish to give new zest to spring-day rambles on the hills by taking along a copy of *Trees of California*. WILLIAM FREDERIC BADÉ

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THE ASSAULT ON MOUNT EVEREST* Before Columbus discovered our Western Continent the greatest mountain mass in the world was well known to the Lamas of Tibet and called by them "Chomolungo."

They believed it to be the abode of the god Shiva and goddess Parvati, who were protected from man by a great horde of demons or spirits of the storms, who controlled the winds, the ice, and the avalanches. When the foreign Sahibs sent requests to explore and climb these great peaks permission was refused for fear of the wrath of the gods of the snow. The great mountain, Kangchenjunga (28,151 feet), which overlooks Darjeeling, is within one thousand feet of the height of Chomolungo (Everest)—29,002 feet. It had never been ascended or explored when, in 1903, George Douglas Freshfield got up his expedition. He had just reached the north

* *The Assault on Mount Everest*, 1922. By GENERAL C. G. BRUCE et al. Longmans Green & Company, 1923.



OUTLET OF LAKE PEARY, GLACIER NATIONAL PARK
Photograph by Walter L. Huber





RESIDENTS OF THE GARDEN WALL TRAIL.
Photograph by Walter L. Huber



LUNCHEON GUEST AT GUNSIGHT LAKE, GLACIER NATIONAL PARK
Photograph by Walter L. Huber

side of Kangchenjunga when a devastating storm struck that part of India. The Darjeeling tea plantations were wrecked, bridges washed away, and several hundred persons lost their lives, a coincidence that more than ever convinced the Lamas of the wrath of the gods.

In the various attempts on Mount Everest the first party reached 22,000 feet. The next party reached 27,300 feet, or within 1700 feet of the summit. The third and last party were overcome and turned back by a great avalanche of snow which took the lives of seven of their brave and faithful porters. However, the daring mountaineers who shared the dangers and honor of this ascent with General Bruce believe that in spite of the extreme elevation and all other deterrents, given a little luck as to weather, transport, and time, the British flag will within a few years wave from the Top of the World. It is significant to note that after the terrible disaster to the climbing party the remaining natives declared themselves also ready to go again at any time. Fatalists as they are, they believed that the men who lost their lives were born to die on Everest.

Alpinists, through the press, have already had placed before them the facts of the reconnaissance of 1921 and the attempt of 1922. These facts are here presented in permanent form and with the addition of many side-lights on Tibetan customs. Animal-lovers will be interested to know that the Tibetans have great closed sacred valleys—their national parks, perhaps—where the wild ass, musk-deer, gazelle, mountain-sheep, and all animal life are held sacred, protected, and regularly fed by the hermits and monks. Among the innumerable items of interest to mountaineers we have space only to mention that it was found that the carrying of oxygen—"English air," the Tibetans called it—enabled the climbing party to sleep "warm and soundly" at 25,000 feet; that breathing-tubes could be removed after reaching great heights without any bad results; and that climbers could make 1000 feet an hour at 25,000 feet, whereas without oxygen the best time was 330 feet an hour.

M. HALL MCALLISTER

OUR VANISHING FORESTS*

The long co-operation between the U. S. Forest Service and the Sierra Club makes this book, a layman's contribution to the subject of forest conservation, of special interest to our readers. Mr. Pack in the first part of the book discusses the forest products on which so much of our national life depends. In the latter part he deals with forest preservation and fire control and reforestation. His text can perhaps be briefly expressed by quoting from the introduction by Colonel Greeley, Chief Forester of the United States: "It is time we balanced accounts with our forest. It is time we became growers as well as users of wood. It is time we acquired something of the forestry sense of the provident folk of the Old World—the instinct to protect the woods, to plant a tree where no more valuable plant will grow."

M. R. P.

* *Our Vanishing Forests*. By ARTHUR NEWTON PACK. The Macmillan Company, New York. 1923. 183 pages. Price, \$2.00

TRAMPING WITH
A POET IN THE
ROCKIES*

As books on nature come to hand from month to month, we find that they are likely to fall into two classes, one of which belongs to the men of science who are continually making new contributions to our knowledge of the mountains and the forests, and the other great class belongs to those who rejoice in nature and cannot help writing of their feelings and adventures. The latter class we are not disparaging, but its books, in such large part, tend to a mean level that is neither good nor bad. But here is a book of this latter class which almost leaps of its own accord from the table to the reader's hand. Listen to this:

Then night came on that covers all
Of high and mean degree—
The king, the clown, the russet gown,
The land, the clouds, the sea;
"And yet I scarcely feel," said one,
"It really covers me."

That is from the chapter on "Night and Nothing on the Mountains," which is chapter VIII, but it is not necessary to go so far in the book for a good quotation. That is only where the book happened to open. For see, you desk slaves, how gloriously chapter I concludes:

The Indians are dancing as we enter their paradise,
Our hearts are dancing too.
We love the Indians because they never bent their backs
To slavery,
To civilization,
To office-desks.
What matter if they are dying out;
They have at least lived once.

This volume is not all poetry, but it is all a kind of poetry if freshness and imagination and joy and life and acute observation and humor and exultation are the stuff of poetry. It is a tale of no utter use or importance, but it should, methinks, be as pleasant to the mountaineer as Mother Goose is to the nursery.

Everyone will be discussing it on this summer's outing. You, discriminating reader, will not, I know, read this book merely on account of that, but I just thought I'd let you know. One word more: the poet is Vachel Lindsay.

C. N. H.

THE ELFIN
FOREST†

It is always a pleasure to learn that one of our own club members has produced a book which contributes definitely to our appreciation of nature in this western world. *The Elfin Forest* of California is a story of the chaparral with which every Californian is well acquainted in general, but with which few are as familiar as the author of this book, to whom it is in very fact a miniature forest made up of plants of the greatest variety and beauty. The reviewer recalls the phrase of the old Latin philosopher that nature is most astonishing in its smallest manifestations and Mr. Muir's frequent assertion as to the beauty and variety of mosses

* *Tramping with a Poet in the Rockies*. By STEPHEN GRAHAM. D. Appleton & Company, New York. 1922. With 38 emblems by Vernon Hill. Pages, x+279.

† *The Elfin Forest*. By FRANCES M. FULTZ. Times-Mirror Press, Los Angeles. 1923. 123 illustrations from photographs. 267 pages.

and lichens. The author of *The Elfin Forest* has made a similar discovery, and has revealed a new world in these mountain coverings which are of such great practical value and, when closely observed, of much esthetic charm.

The book is replete with photographs which illustrate well an interesting narrative. Its value is further enhanced by an index, a feature which we cannot commend too heartily in books of this, or indeed any, type. C. N. H.

* *

BEAUTIFUL AMERICA* This book catalogues and describes the points of scenic interest in the United States and Alaska. The descriptions, necessarily, are brief. A few pages are devoted in the beginning to the principal points of interest in the eastern ranges, from the Maine woods to the Blue Ridge Mountains. A few more follow on the Rockies, Cascades, Olympics, Sierras, and lesser western groups. Chapters are included on the river systems, the great swamps and deserts, on the petrified forests and other wonders of rock, on the ocean-shore regions, and on the lakes. There are also chapters on the famous mineral springs, and on the national parks and monuments. The closing chapter is descriptive of Alaska. The illustrations are from photographs, and are especially well chosen and reproduced. On the front cover is a charming sunset view in color of snow-covered Mount Hood, with reflection in Lost Lake. The descriptions throughout are interspersed with history and Indian lore, and the author has quoted widely from the poets.

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THE SOUTHERN SIERRAS OF CALIFORNIA† Our southern California mountains are wonderfully filled with romance, and Mr. Saunders has made the most of this fact in his book. It is full of beautiful descriptions of cañons and heights and of tales of dangerous climbs and of vagabonding along beaten trails. The author even makes crowded summer camps attractive, though he is careful to visit them in the off season himself. He meets interesting characters and draws from them local stories, humorous or historic. He takes one over the padres' trail and over the road that Fremont traveled. The photographs are many and well taken. F. B.

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WILD ANIMAL HOMESTEADS‡ Did you know that the "busy beaver" takes a three months' vacation away from home? That a grizzly bear is harmless unless cornered? That wild animals work much less than they play? To Sierra Club readers to say that the book which raises these questions was written by the late Enos A. Mills is introduction enough.

* *Beautiful America*. By VERNON QUINN. Frederick A. Stokes Company. 333 pages. 39 illustrations from photographs. Price, \$4.00.

† *The Southern Sierras of California*. By CHARLES FRANCIS SAUNDERS. Houghton Mifflin Company. 1923. Illustrated. 363 pages. Price, \$4.00.

‡ *Wild Animal Homesteads*. By ENOS A. MILLS. Doubleday, Page & Company. 1923. Illustrated. 259 pages. Price, \$2.50.

CLIMBS ON ALPINE PEAKS* This book, which derives much of its timely interest from the fact that its author is now Pope Pius XI, is a translation of several articles from the *Rivista Mensile* of the Italian Alpine Club, 1889-1891. The most important climb, the narrative of which comprises the greater part of the book, deals with the first Italian traverse of Monte Rosa from Maougnaga to Zermatt, made by the author in 1889 in company with Professor Sacerdote Luigi Grasselli, and with Guiseppe Gadin as guide. It is a spirited account of a dangerous climb, delayed by unfortunate snow conditions that brought them to the summit at 7:30 P.M. By some editorial oversight, congratulatory letters and bibliographical lists, more properly included among the prefatory notes, are made to open the book. By their inclusion in the body of the narrative an entirely false first impression is created, inconsistent with the straightforward, simple story of a young mountaineer who derives from the mountains a "spiritual energy" and a desire to "seal with a vigorous act of his own volition his relationship with the Infinite."

M. R. P.

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DOWN THE MACKENZIE† In this rather casual introduction to the "vast upper room of the hemisphere" an unfortunate impression of Main Street oratory is given in the first chapter on Edmonton. This, however, is quickly succeeded by gay accounts of the "sociable" train and river-boat trip with which the long voyage commenced. Though written from the point of view of the outsider, and too padded with minor incidents, this account of a journey from Edmonton to the Arctic shore is in the main amusing and readable.

M. R. P.

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SNOW AND ICE SPORTS‡ One of the best of the winter-sports manuals read by this reviewer. It has a wide range of subjects and is a book for American sportsmen more particularly. The author, for instance, in offering advice on clothing and equipment, inclines to favor Alaska models rather than those in vogue at St. Moritz. The book is eminently practical, giving analyses of the technique of all winter sports.

M. R. P.

* *

ALPINE SKIING AT ALL HEIGHTS AND SEASONS§ A carefully detailed study of skiing, dealing particularly with weather conditions which necessarily govern the sport. Different from the usual manual in that it dwells rather on the conditions the ski-runner has to face than on instruction in his art.

M. R. P.

* *Climbs on Alpine Peaks*. By ABATE ACHILLE RATTI (Pope Pius XI). Translated by J. E. C. Eaton. Houghton Mifflin Company, Cambridge. 1923. 139 pages. Price, \$2.00.

† *Down the Mackenzie*. By FULLERTON WALDO. The Macmillan Company, New York. 1923. Illustrated. 251 pages. Price, \$3.00.

‡ *Snow and Ice Sports: A Winter Manual*. By ELON JESSUP. E. P. Dutton & Company. 1923. 293 pages. Price, \$3.50.

§ *Alpine Skiing at All Heights and Seasons*. By ARNOLD LUNN. E. P. Dutton & Company. 113 pages. Price, \$2.00.

THE STORY OF INYO* To most of us Inyo used to be "the other side of the mountain." In recent years, however, more and more people have been entering the High Sierra from the eastern side, and to them Inyo is the starting-point for the mountain trip. But before the highways were improved and the automobile was hardy enough to penetrate the desert, Inyo was wont to seem a land of mystery and surmise. Standing on Mount Whitney we have gazed off over the pale shimmering Owens Lake to range after range of lifeless mountains. A fascinating strip of green lay between, but it seemed too meager for the support of human life.

Yet here in Owens Valley white men have lived and fought and worked and maintained a culture for sixty years. Their history is full of vivid episodes, part of the frontier life that has built America. Chalfant makes it seem very real. He and his father have been part of it all, holding high the standard of civilization in the land, and now he asks our attention while he incorporates this story of Inyo into the history of California. It is truly a part of that history, and when next we stand on Whitney's crest we shall see with more comprehending eye what lies before us.

F. P. F.

* *The Story of Inyo*. By W. A. CHALFANT. Published by the author, [Bishop, California]. 1922. Pages, xviii+358. Price, \$3.00.



